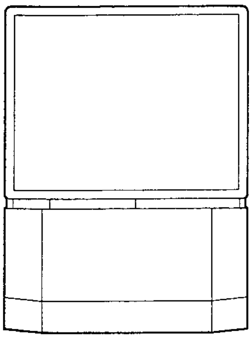
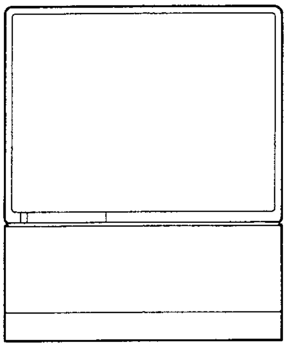
MITSUBISHI

Service Manual

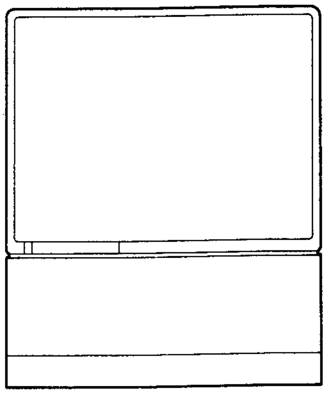
PROJECTION TELEVISION
VZ1 Chassis



MODEL
VS-40VA2



MODEL
VS-45VA1/VA2/VA2CA
VS-50VA1/VA2/VA2CA



MODEL
VS-60VA2/VA2CA

CAUTION

Before servicing this chassis, it is important that the serviceman reads the “SAFETY PRECAUTIONS” and “PRODUCT SAFETY NOTICE” in this service manual.

SPECIFICATIONS

• **Power Input**	AC 120V 60Hz
• **Power Consumption**	260W
• **Reception Frequency**	VHF 54~168, 174~468MHz UHF 470~806MHz
• **Antenna Input**	VHF 75 ohm unbalanced UHF 75 ohm unbalanced
• **CRT**	VT07M72JB22(R.G.B) Hybrid (Magnetic + Static) Focus
• **Intermediate Frequency**	Video IF Carrier 45.75MHz Sound IF Carrier 41.25MHz Color IF Carrier 42.17MHz
• **High Voltage**	32.0kV (at 0μA)
• **Speaker**	4.7"×7.1"oval 2pcs 2.0"round 2cps
• **Cabinet Dimensions**	34.5"(W) x 45.9"(H) x 27.0" (VS-40VA2) 39.8"(W) x 49.9"(H) x 21.5" (VS-45VA1/VA2/VA2CA) 44.3"(W) x 52.4"(H) x 23.0" (VS-50VA1/VA2/VA2CA) 49.4"(W) x 56.7"(H) x 26.3" (VS-60VA2/VA2CA)

• **Weight**	193.8lbs(VS-40VA2) 207.0lbs(VS-45VA1/VA2/VA2CA) 207.0lbs(VS-50VA1/VA2/VA2CA) 262.1lbs(VS-60VA2/VA2CA)
• **Input**	2 -Video inputs 1.0Vp-p 75 ohm (RCA JACK) 2-Audio inputs (L/R) over 10k ohm −7dB (RCA JACK) S-input (Y/C Separate input) 75 ohm Y: 1.0Vp-p C: 0.286Vp-p (Burst)
• **Output**	2-Video output 1.0Vp-p 75 ohm (RCA JACK) 2-Audio output (L/R) (RCA JACK) 2-Speaker outputs (L/R) 8 ohm
• **Effective picture size**	40" diagonal (VS-40VA2) 45" diagonal (VS-45VA1/VA2/VA2CA) 50" diagonal (VS-50VA1/VA2/VA2CA) 60" diagonal (VS-60VA2/VA2CA)

MITSUBISHI ELECTRIC

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SAFETY PRECAUTIONS

NOTICE : Observe all cautions and safety notes located inside the receiver cabinet and on the receiver chassis.

WARNING

1. Operation of this receiver outside the cabinet or with the cover removed presents a shock hazard from the receiver power supplies. Work on the receiver should not be attempted by anyone who is not thoroughly familiar with the precautions necessary when working on high-voltage equipment.
2. Do not install, remove or handle the picture tube in any manner unless shatter-proof goggles are worn. People not so equipped should be kept away while the picture tube is being handled. Keep the picture tube away from the body while handling.

X-RADIATION WARNING

The surface of the picture tube may generate X-Radiation. Precaution during service and, if possible, the use of a lead apron is recommended for shielding while handling.

When replacing the picture tube, use only the designated replacement part since it is a critical component with regard to X-Radiation as noted above. (No high-voltage adjustments are provided.) The high-voltage specification is described on cover page.

LEAKAGE CURRENT CHECK

Before returning the receiver to the customer, it is recommended that leakage current be measured according to the following methods.

1. Cold Check

With the AC plug removed from the 120V AC source, place a jumper across the two AC plug prongs. Turn the receiver AC switch on. Using an ohm-meter, connect one lead to the AC plug and touch the other lead to each exposed metal part (antennas, handle bracket, metal cabinet, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis. Exposed metal parts having a return path to the chassis should have a minimum resistance reading of 1 meg ohm. Any resistance below this value indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

2. Hot Check

Use the circuit in Fig. 1 to perform this test.

(1) With switch S1 open, connect the receiver to the measuring circuit. Immediately after connection, measure the leakage current using both positions of switch S2, and with the switching devices in the receiver in all of their operating positions.

(2) Switch S1 is then closed, energizing the receiver. Immediately after closing the switch, measure the leakage current using both positions of switch S2, and with the switching devices in the receiver in all of their operating positions. Current measurements of items (1) and (2) are to be repeated after the receiver has reached thermal stabilization.

The leakage current shall not be more than 0.5 miliampere.

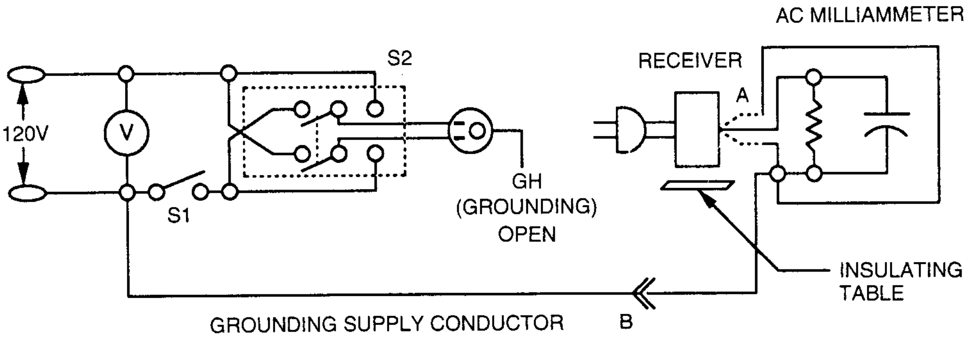


Fig. 1

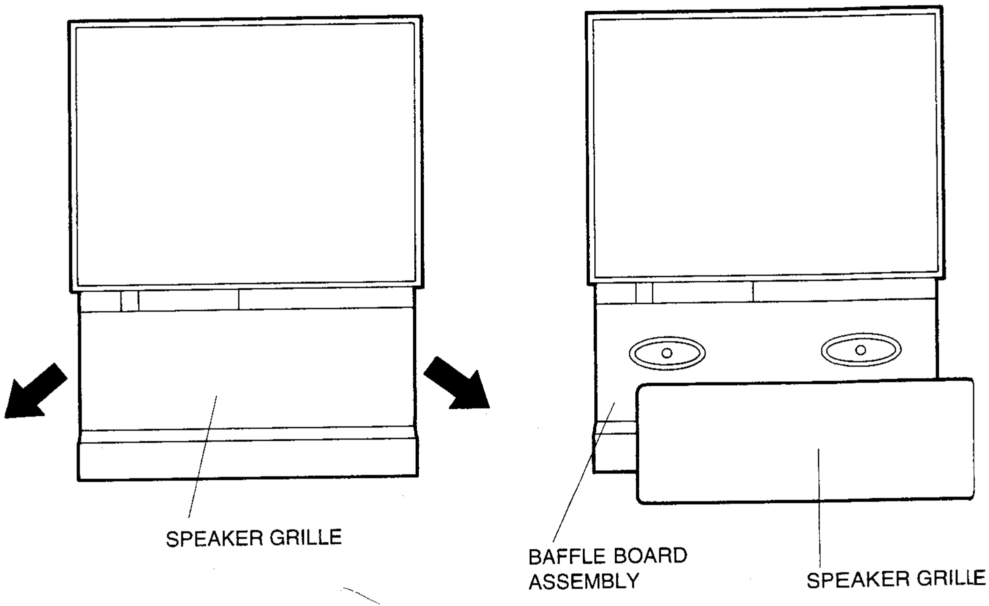
PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the VSS have special safety related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this service manual. Electrical components having such features are identified by shading on the schematic diagram and the parts list of this service manual and by marking of the supplementary sheet for this chassis to be issued subsequently.

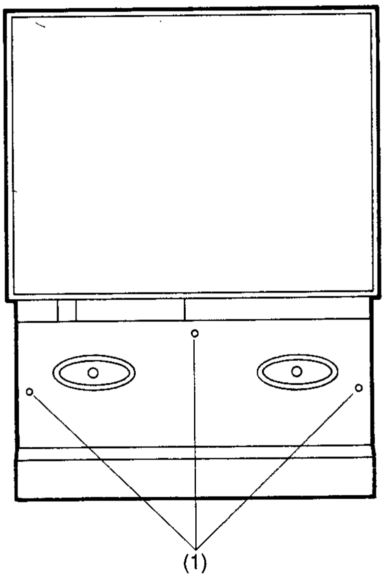
SERVICING

REMOVAL OF BAFFLE BOARD ASSEMBLY 40" Models

1. Pull the SPEAKER GRILLE forward to remove. [Fig. 2-1(a)]
2. Remove 3 screws (1) retaining BAFFLE BOARD ASSEMBLY. [Fig. 2-1(b)]



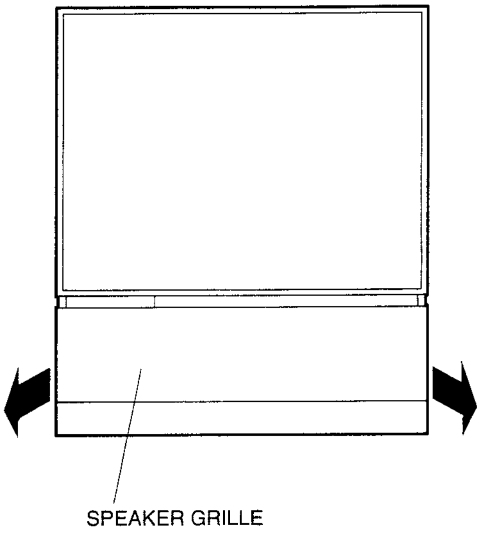
[Fig. 2-1(a)]



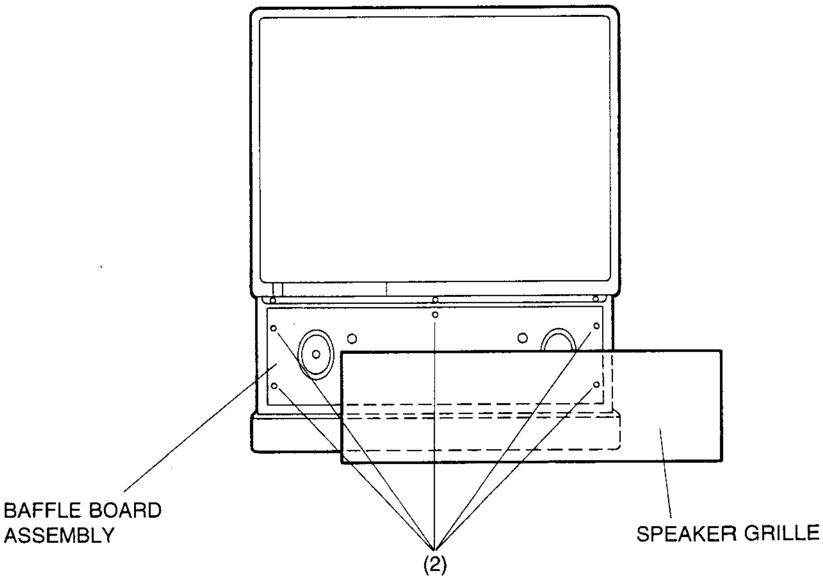
[Fig. 2-1(b)]

REMOVAL OF BAFFLE BOARD ASSEMBLY 45", 50" and 60" Models

1. Pull the SPEAKER GRILLE forward to remove. [Fig. 2-1(c)]
2. Remove 5 screws (2) retaining BAFFLE BOARD ASSEMBLY. [Fig. 2-1(d)]


SPEAKER GRILLE

[Fig. 2-1(c)]

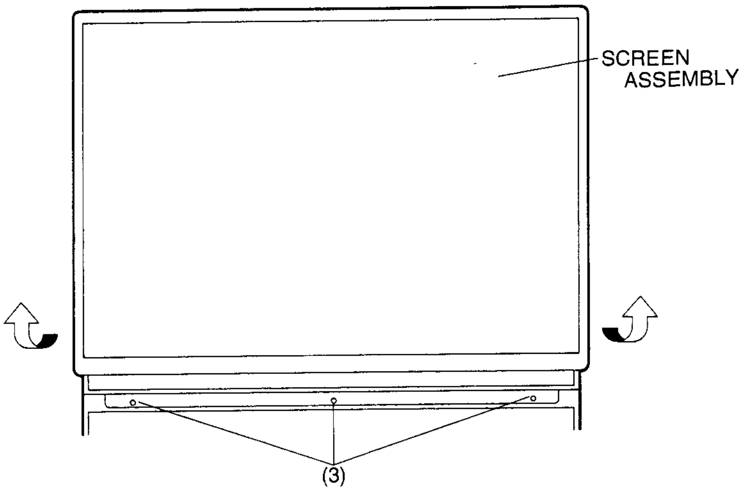

BAFFLE BOARD ASSEMBLY
(2)
SPEAKER GRILLE

[Fig. 2-1(d)]

REMOVAL OF SCREEN ASSEMBLY

·40", 45" and 50" Models

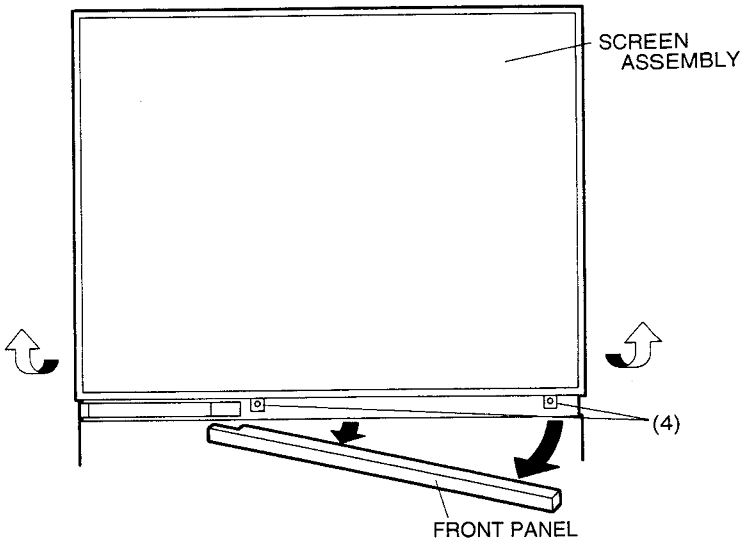
1. Remove the SPEAKER GRILLE. [Refer to Fig. 2-1(a), (c)]
2. Remove the BAFFLE BOARD ASSEMBLY. [Refer to Fig. 2-1(b), (d)]
3. Remove Connectors ZD, ZE and ZF.
4. Remove 3 screws (3) retaining the SCREEN ASSEMBLY. [Fig. 2-2(a)]
5. Remove the SCREEN ASSEMBLY in arrow direction. [Fig. 2-2(a)]



[Fig. 2-2(a)]

60" Models

1. Pull the FRONT PANEL forward to remove. [Fig. 2-2(b)]
2. Remove 2 screws (4) retaining the SCREEN ASSEMBLY. [Fig. 2-2(b)]
3. Remove the SCREEN ASSEMBLY in arrow direction. [Fig. 2-2(b)]

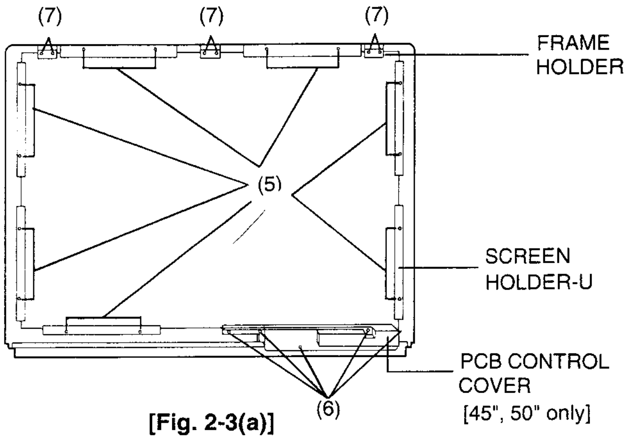


[Fig. 2-2(b)]

REMOVAL OF LENTICULAR SCREEN AND FLESNEL LENS

40", 45" and 50" Models

1. Remove the SPEAKER GRILLE. [Refer to Fig. 2-1(a), (c)]
2. Remove the BAFFLE BOARD ASSEMBLY. [Refer to Fig. 2-1(b), (d)]
3. Remove the SCREEN ASSEMBLY. [Refer to Fig. 2-2(a)]
4. Remove 14 screws (5) retaining the SCREEN HOLDER-U. [Fig. 2-3(a)]
5. Remove 5 screws (6) retaining the PCB-CONTROL COVER. [Fig. 2-3(a)][45", 50"]
6. Remove 6 screws (7) retaining the FRAME HOLDER. [Fig. 2-3(a)]



[Fig. 2-3(a)]

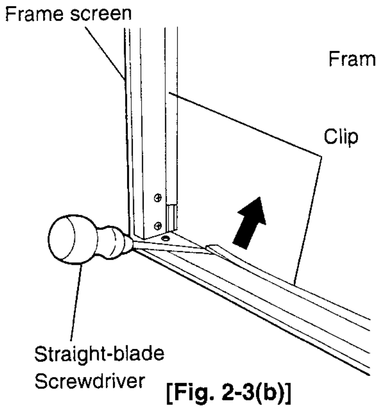
Notes regarding handling of the SCREEN.

1. Wear gloves during handling to prevent scratches and/or fingerprints.
2. Do not handle the fresnel lens outdoors or in direct sunlight.
   Never leave it unattended; doing so might result in fire or in someone getting burned.
3. Store in a dry place; absorbed humidity could cause deformation.
4. When the fresnel lens or the lenticular screen are removed, never lean them against a wall or anything else; this might cause warping or bending of the lens or screen.
5. Always handle carefully to prevent scratches or other damage.

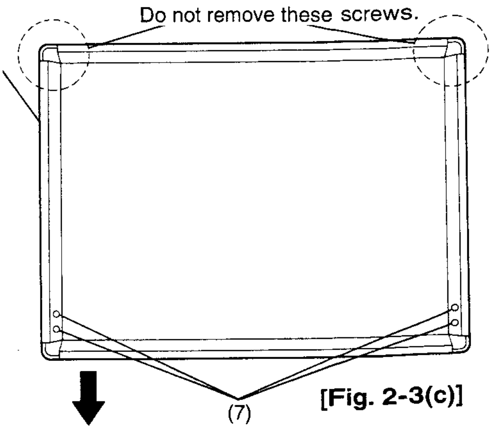
60" Models

1. Perform Steps 1 through 3 above.
2. Insert a straight driver under the end of clip at the bottom of the Frame screen. Move up the clip with the driver slightly to remove it. [Fig. 2-3(b)]
3. Remove 4 screws, (7) in Fig. 2-3(c), and the Frame at the bottom in the direction of the arrow. [Fig. 2-3(c)]
4. Remove the Lenticular screen and the Flesnel lens.

NOTE: Strip off pressure sensitive adhesive double coated tape carefully, warming the joint of the Lenticular screen and the Flesnel lens with a heat gun.



[Fig. 2-3(b)]

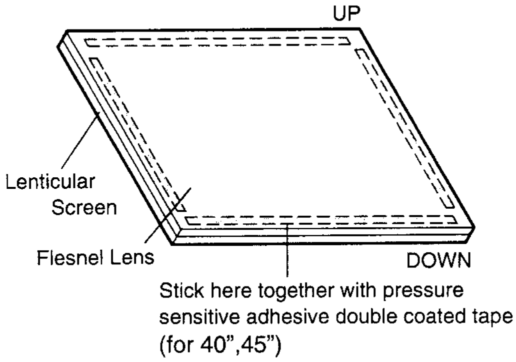


[Fig. 2-3(c)]

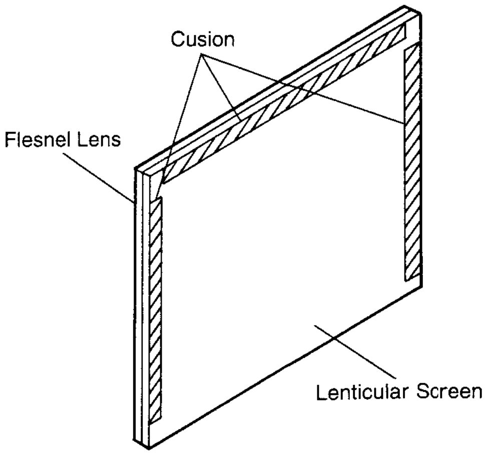
ATTACHMENT OF LENTICULAR SCREEN AND FLESNEL LENS

40", 45" and 50" Models

1. Stick the Lenticular screen and the Flesnel lens together with pressure sensitive adhesive double coated tape. [Fig. 2-4(a)]
2. Stick some cushion at the side of the Lenticular screen. This prevents dusting from vibration between the Frame and the Lenticular screen.
3. Fit the Lenticular screen and the Flesnel lens into the Frame screen.
4. Attach the FRAME HOLDER. [Refer to Fig. 2-3(a)]
5. Attach the SCREEN HOLDER-U. [Refer to Fig. 2-3(a)]
6. Attach the PCB-CONTROL COVER. [Refer to Fig. 2-3(a)][45", 50"]


UP
Lenticular Screen
Flesnel Lens
DOWN
Stick here together with pressure sensitive adhesive double coated tape (for 40",45")

[Fig. 2-4(a)]


Cusion
Flesnel Lens
Lenticular Screen

[Fig. 2-4(b)]

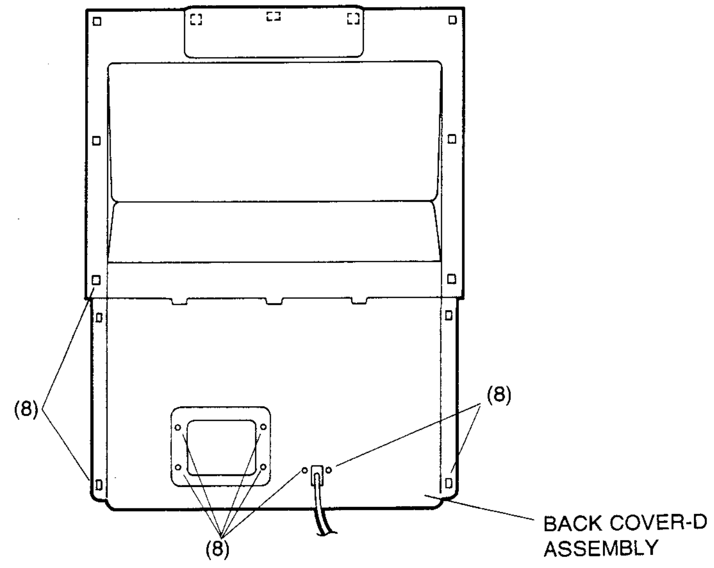
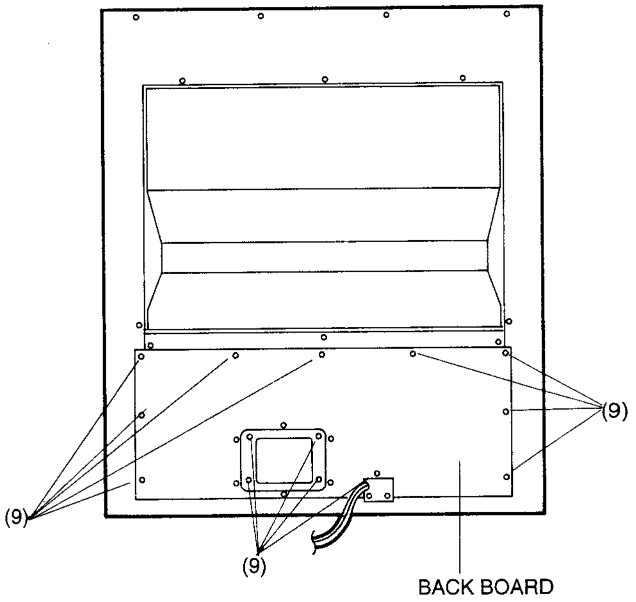
60" Models

1. Stick the Lenticular screen and the Flesnel lens together with pressure sensitive adhesive double coated tape. [Fig. 2-4(a)]
2. Stick some cushion at the side of the Lenticular screen. This prevents dusting from vibration between the Frame and the Lenticular screen.
3. Fit the Lenticular screen and the Flesnel lens into the Frame screen.
4. Tighten 4 screws of the Frame screen, (7) in Fig. 2-3(c).
5. Insert the clip onto the Frame screen to fix the Lenticular screen and the Flesnel lens.

CAUTIONS IN HANDLING LENTICULAR SCREEN AND FLESNEL LENS

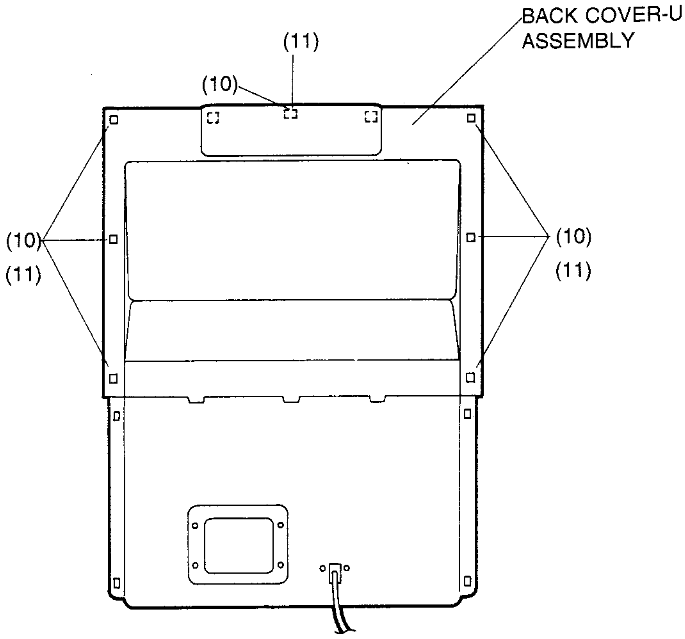
1. Wear gloves in handling the Lenticular screen and the Flensnel lens. This prevents cut and finger print fouling.
2. Do not face the Flesnel lens to the sun. This prevents fire and heat injury to persons.
3. Store in a dry place. High humidity causes deformation of Lenticular screen and Flesnel lens.

SERVICING

REMOVAL OF BACK-COVER-D ASSEMBLY 40", 45" and 50" Models	1. Remove 10 screws (8) retaining the BACK COVER-D ASSEMBLY. [Fig. 2-5]  (8) (8) (8) BACK COVER-D ASSEMBLY **[Fig. 2-5]**
REMOVAL OF BACK BOARD 60" Models	1. Remove 14 screws (9) retaining the BACK BOARD. [Fig. 2-6]  (9) (9) (9) BACK BOARD **[Fig. 2-6]**

REMOVAL OF BACK-COVER-U ASSEMBLY 40", 45" and 50" Models

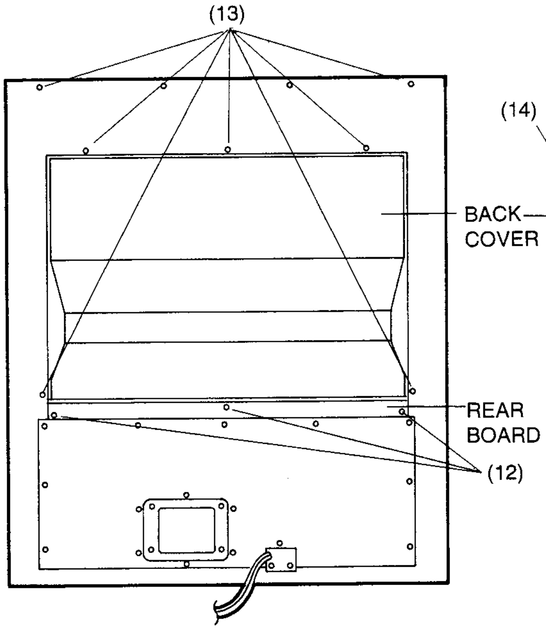
1. Remove the BACK COVER-D ASSEMBLY. [Refer to Fig. 2-5]
2. Remove 7 screws (10) retaining the BACK COVER-U ASSEMBLY. [Fig. 2-7][40"]
   Remove 9 screws (11) retaining the BACK COVER-U ASSEMBLY. [Fig. 2-7][45", 50"]


BACK COVER-U
ASSEMBLY
(11)
(10)
(10)
(11)
(10)
(11)

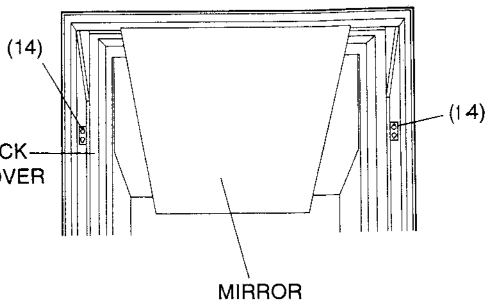
[Fig. 2-7]

REMOVAL OF BACK COVER 60" Models

1. Remove the BACK BOARD. [Refer to Fig. 2-6]
2. Remove 3 screws (12) retaining the REAR BOARD. [Fig. 2-8(a)]
3. Remove 9 screws (13) retaining the BACK COVER. [Fig. 2-8(a)]
4. Remove 2 screws (14) retaining the BACK COVER. [Fig. 2-8(b)]

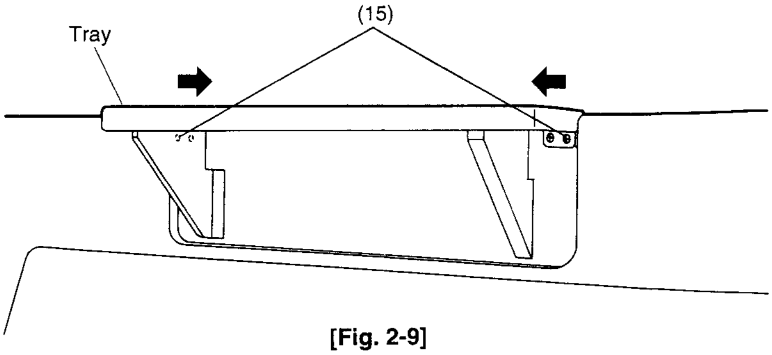

(13)
BACK
COVER
REAR
BOARD
(12)

[Fig. 2-8(a)]


(14)
(14)
MIRROR

<FRONT SIDE>

[Fig. 2-8(b)]

REMOVAL OF TRAY 45" and 50" Models ONLY	1. Remove 2 screws of the Tray, (15) in Fig. 2-9. 2. Remove fittings of the tray in the direction of the arrow.  **[Fig. 2-9]**

General note for PCB removal: When servicing the PCB, unclamp the lead wires and pull out the PCB for servicing. After servicing is completed, reclamp the lead wires in their original position.

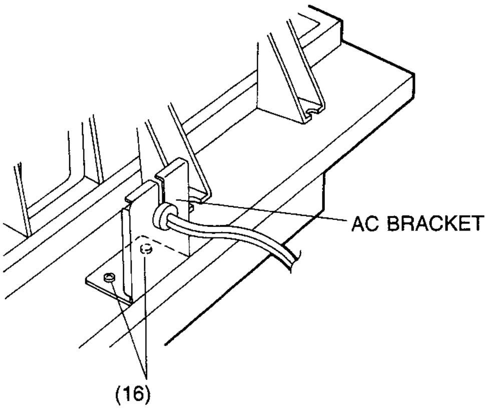
SERVICING

REMOVAL OF PCB-MAIN, PCB-SIGNAL, PCB-TERMINAL and PCB-POWER-SUB.	

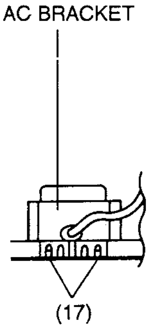
REMOVAL OF PCB-MAIN, PCB-SIGNAL, PCB-TERMINAL and PCB-POWER-SUB.

※ When servicing PCB-PIP, PCB-FS, PCB-PCC and PCB-TERMINAL use the service JIG (Part No. 859C432O10) for easier access.

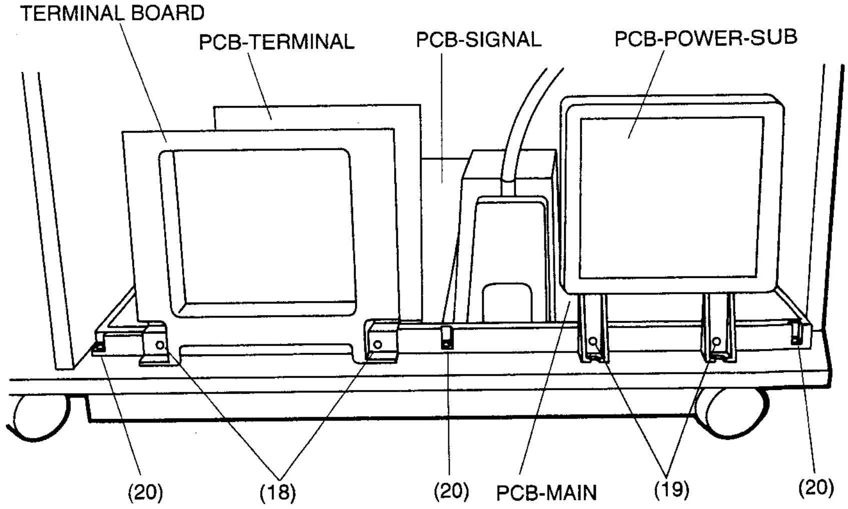
1. Remove the BACK-COVER-D ASSEMBLY. [Refer to Fig. 2-5][40", 45", 50"]
   Remove the BACK BOARD. [Refer to Fig. 2-6][60"]
2. Remove 2 screws (16) retaining the AC BRACKET. [Fig. 2-10(a)][40", 45", 50"]
   Remove 2 screws (17) retaining the AC BRACKET. [Fig. 2-10(b)][60"]
3. Remove 2 screws (18) retaining the TERMINAL BOARD. [Fig. 2-10(c)]
4. Remove 2 screws (19) retaining the PCB-POWER-SUB. [Fig. 2-10(c)]
5. Remove 3 screws (20) retaining the PCB-MAIN and PCB-SIGNAL. [Fig. 2-10(c)]


AC BRACKET
(16)

[Fig. 2-10(a)]


AC BRACKET
(17)

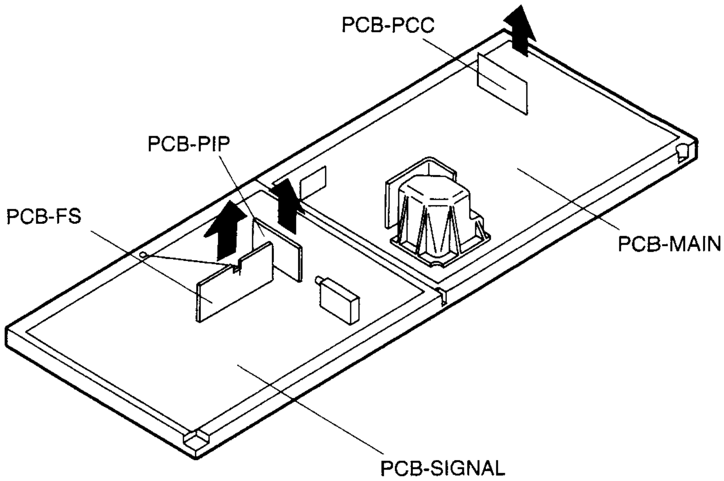
[Fig. 2-10(b)]


TERMINAL BOARD
PCB-TERMINAL
PCB-SIGNAL
PCB-POWER-SUB
(20)
(18)
(20)
PCB-MAIN
(19)
(20)

[Fig. 2-10(c)]

REMOVAL OF PCB-FS, PCB-PIP and PCB-PCC

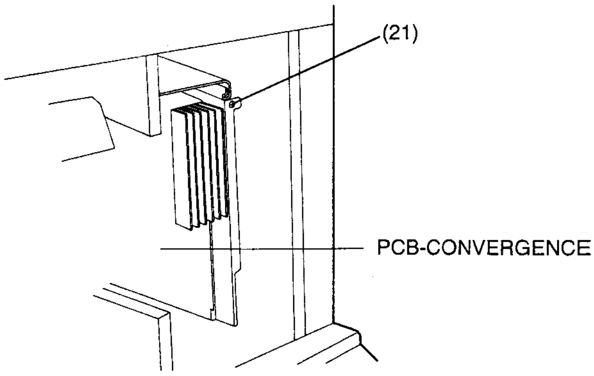
1. Remove the BACK COVER-D ASSEMBLY. [Refer to Fig. 2-5][40", 45", 50"]
   Remove the BACK BOARD. [Refer to Fig. 2-6][60"]
2. Remove the AC BRACKET. [Refer to Fig. 2-10(a), (b)]
3. Remove the PCB-MAIN and PCB-SIGNAL. [Refer to Fig. 2-10(c)]
4. Remove the PCB-FS, PCB-PIP and PCB-PCC to arrow direction. [Fig. 2-11]



[Fig. 2-11]

REMOVAL OF PCB-CONVERGENCE

1. Remove the SPEAKER GRILLE. [Refer to Fig. 2-1(a), (c)]
2. Remove the BAFFLE BOARD ASSEMBLY. [Refer to Fig. 2-1(b), (d)]
3. Remove 1 screw (21) retaining PCB-CONVERGENCE. [Fig. 2-12]
4. Side the front of PCB-CONVERGENCE to the right to remove.

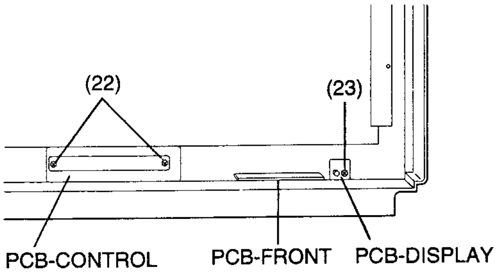


[Fig. 2-12]

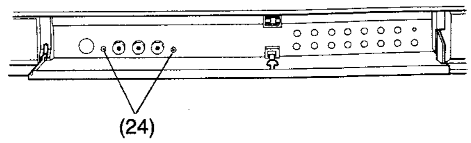
REMOVAL OF PCB-CONTROL, PCB-FRONT and PCB-DISPLAY

40", 45"and 50" Models

1. Remove the SPEAKER GRILLE and BAFFLE BOARD ASSEMBLY. [Refer to Fig. 2-1]
2. Remove the SCREEN ASSEMBLY. [Refer to Fig. 2-2(a)]
3. Remove the PCB-CONTROL COVER. [Refer to Fig. 2-3(a)][45", 50"]
4. Remove 2 screws (22) retaining the PCB-CONTROL. [Fig. 2-13(a)]
5. Remove 1 screw (23) retaining the PCB-DISPLAY. [Fig. 2-13(a)]
6. Remove 2 screws (24) retaining the PCB-FRONT. [Fig. 2-13(b)]


(22)
(23)
PCB-CONTROL
PCB-FRONT
PCB-DISPLAY

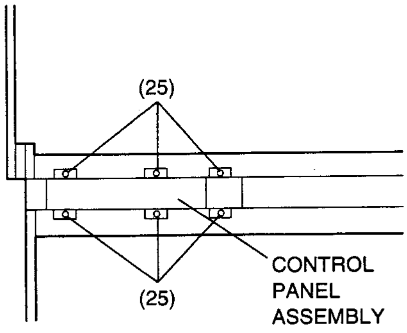
[Fig. 2-13(a)]



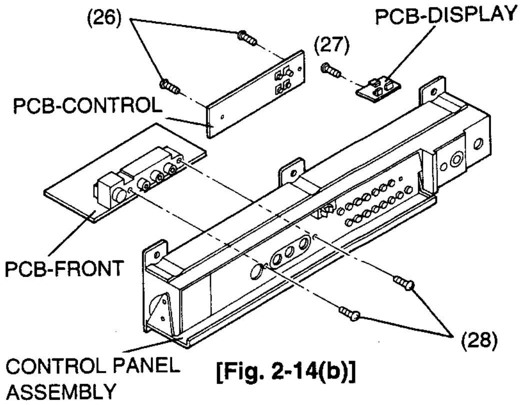
[Fig. 2-13(b)]

60" Models

1. Remove the SPEAKER GRILLE and BAFFLE BOARD ASSEMBLY. [Refer to Fig. 2-1(c), (d)]
2. Remove the SCREEN ASSEMBLY. [Refer to Fig. 2-2(b)]
3. Remove connectors ZD , ZE and ZF .
4. Remove 6 screws (25) retaining the CONTROL PANEL ASSEMBLY. [Fig. 2-14(a)]
5. Remove 2 screws (26) retaining the PCB-CONTROL. [Fig. 2-14(b)]
6. Remove 1 screw (27) retaining the PCB-DISPLAY. [Fig. 2-14(b)]
7. Remove 2 screws (28) retaining the PCB-FRONT. [Fig. 2-14(b)]


(25)
(25)
CONTROL
PANEL
ASSEMBLY

[Fig. 2-14(a)]

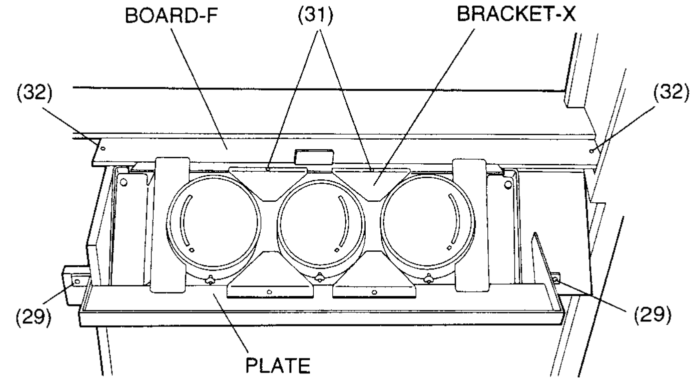

(26)
PCB-DISPLAY
(27)
PCB-CONTROL
PCB-FRONT
(28)
CONTROL PANEL
ASSEMBLY

[Fig. 2-14(b)]

REMOVAL OF CRT 40" and 45" Models

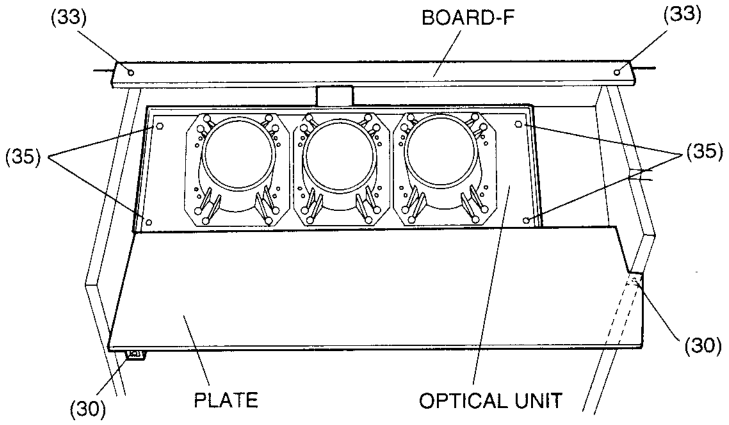
1. Remove the SPEAKER GRILLE. [Refer to Fig. 2-1(a), (c)]
2. Remove the BAFFLE BOARD ASSEMBLY. [Refer to Fig. 2-1(b), (d)]
3. Remove the SCREEN ASSEMBLY. [Refer to Fig. 2-2(a)]
4. Remove the BACK COVER-D ASSEMBLY. [Refer to Fig. 2-5]
5. Remove the BACK COVER-U ASSEMBLY. [Refer to Fig. 2-7]
6. Remove 2 screws (29) retaining the PLATE. [Fig. 2-15(a)][40"]
   Remove 2 screws (30) retaining the PLATE. [Fig. 2-15(b)][45"]
7. Remove 2 screws (31) retaining the BRACKET-X. [Fig. 2-15(a)][40"]
8. Remove the 3 PCB-CRT.
9. Remove 2 screws (32) retaining the BOARD-F. [Fig. 2-15(a)][40"]
   Remove 2 screws (33) retaining the BOARD-F. [Fig. 2-15(b)][45"]
10. Remove 4 hex-nuts (34) retaining the OPTICAL UNIT. [Fig. 2-15(c)][40"]
    Remove 4 hex-nuts (35) retaining the OPTICAL UNIT. [Fig. 2-15(b)][45"]

40" Models


BOARD-F
(31)
BRACKET-X
(32)
(32)
(29)
(29)
PLATE

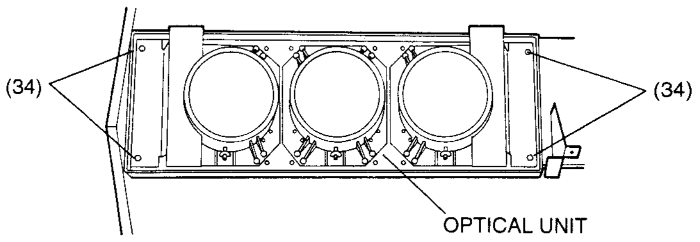
[Fig. 2-15(a)]

45" Models


(33)
BOARD-F
(33)
(35)
(35)
(30)
(30)
PLATE
OPTICAL UNIT

[Fig. 2-15(b)]

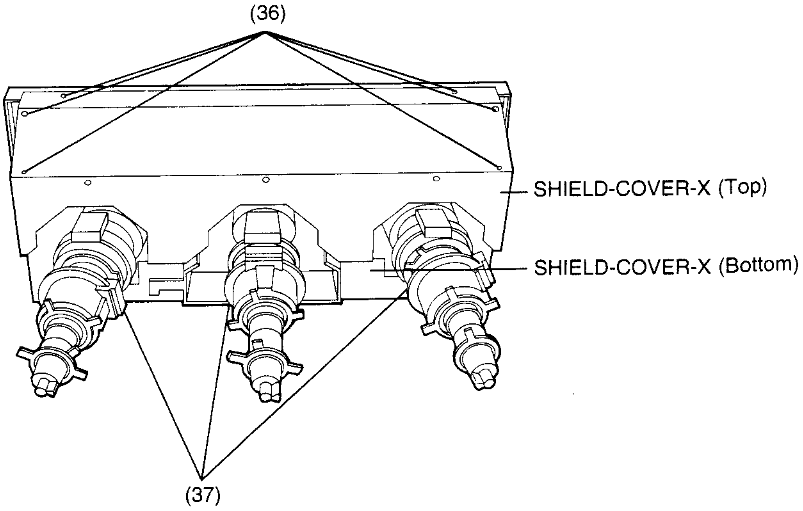
40" Models


(34)
(34)
OPTICAL UNIT

[Fig. 2-15(c)]

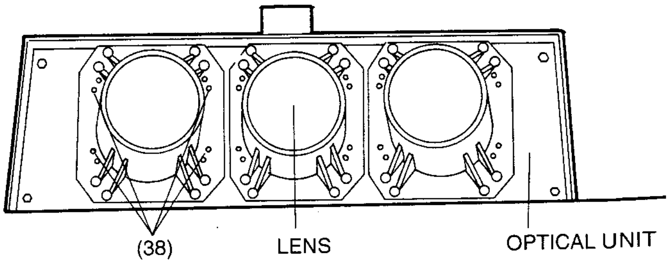
REMOVAL OF CRT 40" and 45" Models

11. Remove 6 screws (36) retaining the SHIELD COVER-X (Top). [Fig. 2-15(d)]
12. Remove 3 screws (37) retaining the SHIELD COVER-X (Bottom). [Fig. 2-15(d)]

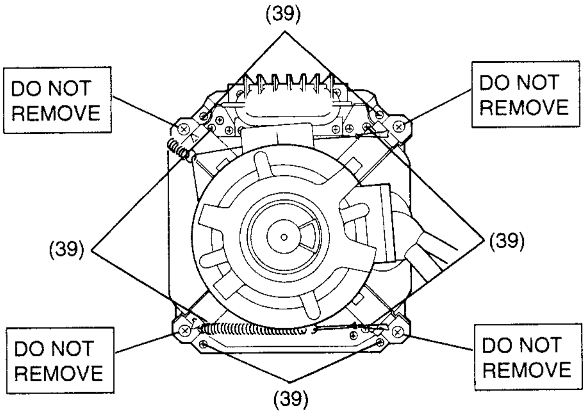

(36)
SHIELD-COVER-X (Top)
SHIELD-COVER-X (Bottom)
(37)

[Fig. 2-15(d)]

13. Remove 4 screws (38) retaining the INNER LENS of the CRT to be replaced. [Fig. 2-15(e), Fig. 2-17(a)]
14. To remove the CRT mounted as shown in Fig. 2-16(f), remove 8 screws (39).
    NOTE: DO NOT remove RED screws.


(38)
LENS
OPTICAL UNIT

[Fig. 2-15(e)]


(39)
DO NOT REMOVE
DO NOT REMOVE
(39)
(39)
DO NOT REMOVE
DO NOT REMOVE
(39)

[Fig. 2-15(f)]

REMOVAL OF CRT 40" and 45" Models

15. Remove the deflection yoke assembly, focus magnet and alignment magnet assembly from the neck of tube.
16. Disconnect the Anode Cap.
    Anode caps are secured to the CRT and sealed with a rubbery, solicone based compound. The seal must be broken and excess compound stripped from the anode area before the anode cap can be successfully removed.

CAUTION !

High voltage should be completely discharged prior to anode cap removal. Since all three CRT receive high voltage from a single cable, discharge simultaneously by shorting the open end of the high voltage cable to chassis ground. The anode cap seal can now be safely broken by inserting a thin-bladed tool between the edge of the anode cap and the CRT rotating the tool around the outer edge of the anode cap.

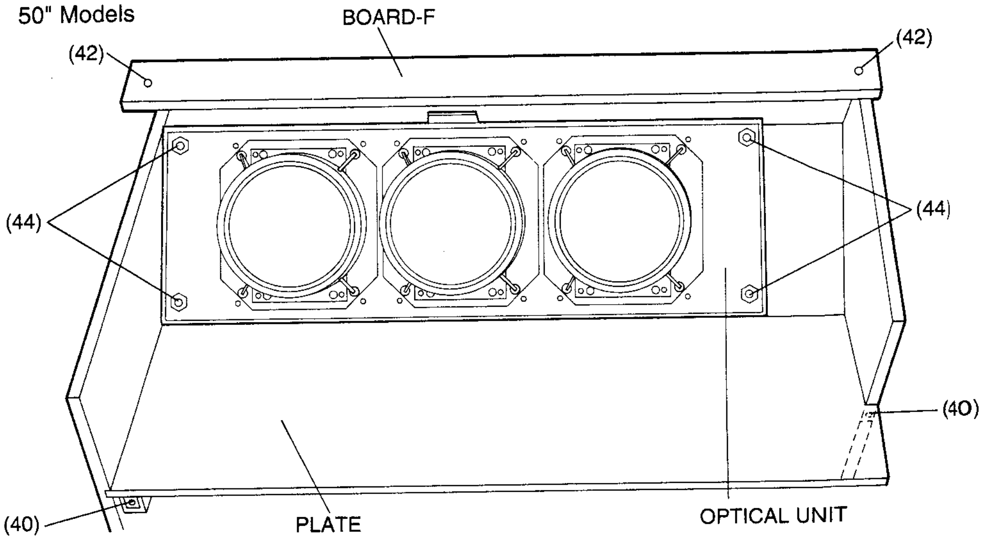
NOTE:

Do NOT damage the Anode cap during removal! Due to safety regulations, the length of the original H.V. cable is not long enough to permit the installation of a replacement anode cap. Consequently, a replacement anode cap is NOT packaged with the replacement CRT.

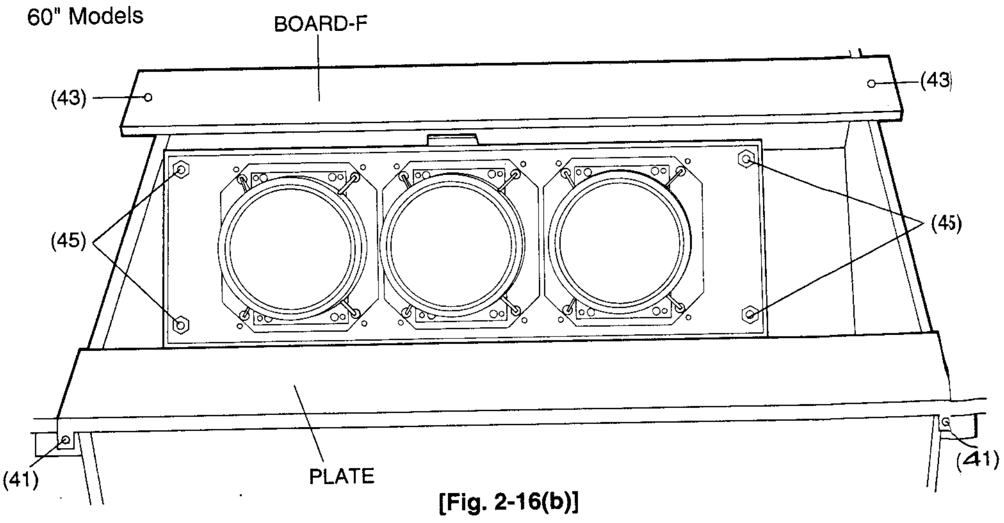
If the Anode Cap is damaged during removal, a new H.V. cable and Anode Cap Harness Assembly must be installed. This assembly includes the H.V. leads and Anode Caps for ALL THREE CRTs.

REMOVAL OF CRT 50" and 60" Models

1. Remove the SPEAKER GRILLE. [Refer to Fig. 2-1(c)]
2. Remove the BAFFLE BOARD ASSEMBLY. [Refer to Fig. 2-1(d)]
3. Remove the SCREEN ASSEMBLY. [Refer to Fig. 2-2(a), (b)]
4. Remove the BACK COVER-D ASSEMBLY. [Refer to Fig. 2-5][50"]
   Remove the BACK BOARD. [Refer to Fig. 2-6][60"]
5. Remove the BACK COVER-U ASSEMBLY. [Refer to Fig. 2-7][50"]
   Remove the BACK COVER. [Refer to Fig. 2-8][60"]
6. Remove 2 screws (40) retaining the PLATE. [Fig. 2-16(a)][50"]
   Remove 2 screws (41) retaining the PLATE. [Fig. 2-16(b)][60"]
7. Remove the 3 PCB-CRT.
8. Remove 2 screws (42) retaining the BOARD-F. [Fig. 2-16(a)][50"]
   Remove 2 screws (43) retaining the BOARD-F. [Fig. 2-16(b)][60"]
9. Remove 4 hex-nuts (44) retaining the OPTICAL UNIT. [Fig. 2-16(a)][50"]
   Remove 4 hex-nuts (45) retaining the OPTICAL UNIT. [Fig. 2-16(b)][60"]


50" Models
BOARD-F
(42)
(42)
(44)
(44)
(40)
(40)
PLATE
OPTICAL UNIT

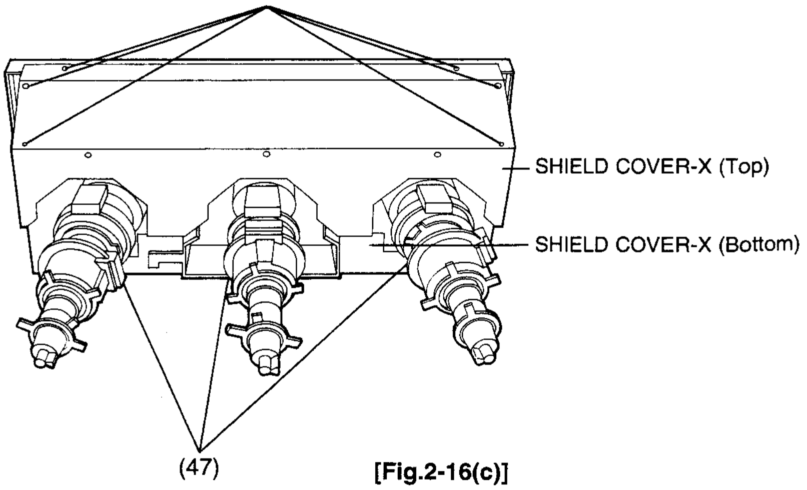
[Fig. 2-16(a)]


60" Models
BOARD-F
(43)
(43)
(45)
(45)
(41)
(41)
PLATE

[Fig. 2-16(b)]

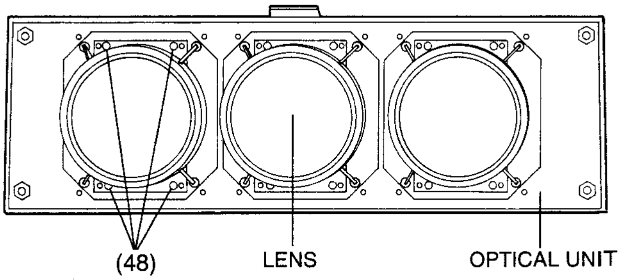
REMOVAL OF CRT 50" and 60" Models

10. Remove 6 screws (46) retaining the SHIELD COVER-X (Top). [Fig.2-16(c)]
11. Remove 3 screws (47) retaining the SHIELD COVER-X (Bottom). [Fig.2-16(c)]

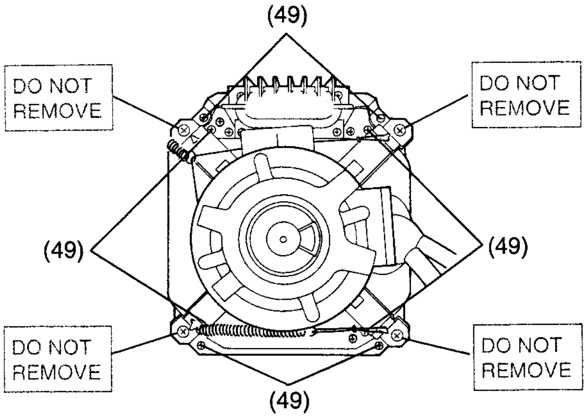

(46)
SHIELD COVER-X (Top)
SHIELD COVER-X (Bottom)
(47)

[Fig.2-16(c)]

12. Remove 4 screws (48) retaining the INNER LENS of the CRT to be replaced. [Fig.2-16(d), Fig.2-17(a)]
13. To remove the CRT mounted as shown in Fig. 2-16(e), remove 8 screws (49).
    NOTE: DO NOT remove RED screws.


(48)
LENS
OPTICAL UNIT

[Fig.2-16(d)]


(49)
DO NOT REMOVE
DO NOT REMOVE
(49)
(49)
DO NOT REMOVE
DO NOT REMOVE
(49)

[Fig.2-16(e)]

REMOVAL OF CRT 50" and 60" Models

14. Remove the deflection yoke assembly, focus magnet and alignment magnet assembly from the neck of tube.
15. Disconnect the Anode Cap.

Anode caps are secured to the CRT and sealed with a rubbery, silicone based compound. The seal must be broken and excess compound stripped from the anode area before the anode cap can be successfully removed.

CAUTION !

High voltage should be completely discharged prior to anode cap removal. Since all three CRT receive high voltage from a single cable, discharge simultaneously by shorting the open end of the high voltage cable to chassis ground. The anode cap seal can now be safely broken by inserting a thin-bladed tool between the edge of the anode cap and the CRT rotating the tool around the outer edge of the anode cap.

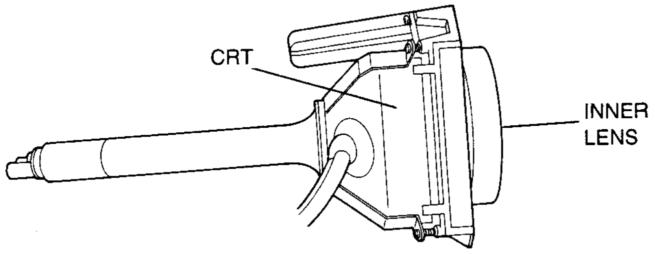
NOTE:

Do NOT damage the Anode cap during removal! Due to safety regulations, the length of the original H.V. cable is not long enough to permit the installation of a replacement anode cap. Consequently, a replacement anode cap is NOT packaged with the replacement CRT.

If the Anode Cap is damaged during removal, a new H.V. cable and Anode Cap Harness Assembly must be installed. This assembly includes the H.V. leads and Anode Caps for ALL THREE CRTs.

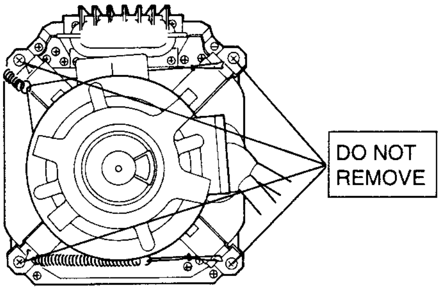
INSTALLATION OF CRT

The service replacement CRT is supplied as an assembly, comprised of the CRT and the inner lens, with the space between them filled with ethylene glycol. Care should be taken during handling and installation to prevent shock from disrupting the seal or alignment between the CRT and inner lens. [Fig.2-17(a)]



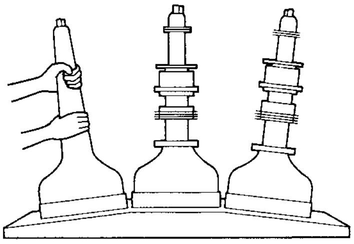
[Fig.2-17(a)]

* The CRT fixing screws should not be allowed to loosen nor should they be removed. [Fig.2-17(b)]

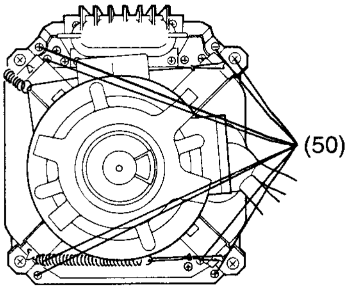


[Fig.2-17(b)]

1. Carefully position replacement CRT fully toward the front, and fasten into place, using 8 screws (50) as shown in Fig. 2-17(c) or Fig. 2-17(d).



[Fig.2-17(c)]

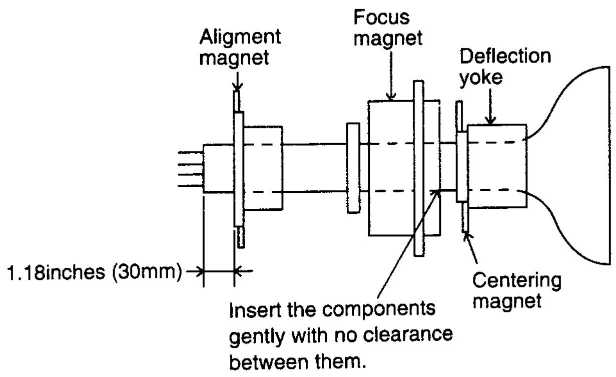


[Fig.2-17(d)]

2. Mount deflection yoke, focus magnet assembly and alignment magnet assembly on the CRT neck.
3. Strip the old silicone glue from the inner surface of the anode cap with a knife, taking care not to scratch it.

INSTALLATION OF CRT

4. Prior to connecting the anode cap, apply an even coat of the sealant compound to the anode area of the CRT and the inside edges of the anode cap. Make sure the anode and the metal connector of the anode cap are not contaminated by the sealant when the anode cap is installed.
5. Insert the clip of the anode cap into the top of the anode terminal on the new CRT, and fix the cap in place. Following the connection of the anode cap, apply another thin coat of sealant around the outside edges of the anode cap assuring a positive seal.
6. Reinstall the screws on inner lens removed in step 13, removal of CRT. [40", 45"]
   Reinstall the screws on inner lens removed in step 12, removal of CRT. [50", 60"]
7. Assemble the shield cover removed in steps 11 and 12, removal of CRT. [40", 45"]
   Assemble the shield cover removed in steps 10 and 11, removal of CRT. [50", 60"]
8. Insert the OPTICAL UNIT in the cabinet.
9. Insert the BOARD-F removed in step 9, removal of CRT. [40", 45"]
   Insert the BOARD-F removed in step 8, removal of CRT. [50", 60"]
10. Insert the BRACKET-X removed in step 7, removal of CRT. [40"]
11. Insert the PLATE removed in step 6, removal of CRT.
12. Insert the BACK COVER-U ASSEMBLY removed in step 5, removal of CRT. [40", 45", 50"]
    Insert the BACK COVER removed in step 5, removal of CRT. [60"]
13. Insert the BACK COVER-D ASSEMBLY removed in step 4, removal of CRT. [40", 45", 50"]
    Insert the BACK BOARD removed in step 4, removal of CRT. [60"]
14. Insert the high voltage wire into HV-BLOCK.
15. Install the PCB-CRT.
16. Position deflection yoke, focus magnet assembly, and centering magnet together so that there is no space between these parts. [Fig. 2-17(e)]
17. Position the Alignment assembly on the neck of the CRT so that the distance between the alignment magnet and the base of the tube is 1.18 inches (30mm). [Fig. 2-17(e)]



[Fig. 2-17(e)]

18. Reclamp the lead wires in their original position.

Ajustment of after replacing the CRT

When replacing the CRT, perform following adjustments.

- CRT Circuit adjustment.
  - (1) CRT cut off (No.18 on Page 33)
  - (2) White Balance (No.19 on Page 34)
- Static convergence adjustment (No.28 on Page 39)
- Focus adjustment (No.25 on Page 37)
- DYNAMIC CONVERGENCE adjustment (No.29 on Page 40)

Electrical Adjustment

Perform only the alignment. If proper equipment is not available, do not attempt an alignment.

Measuring equipment and Jigs

- Oscilloscope (Unless otherwise specified in particular, use 10:1 probes.)
- Signal generator
- Frequency counter
- Sweep signal generator
- Direct current voltmeter
- Electrical tools

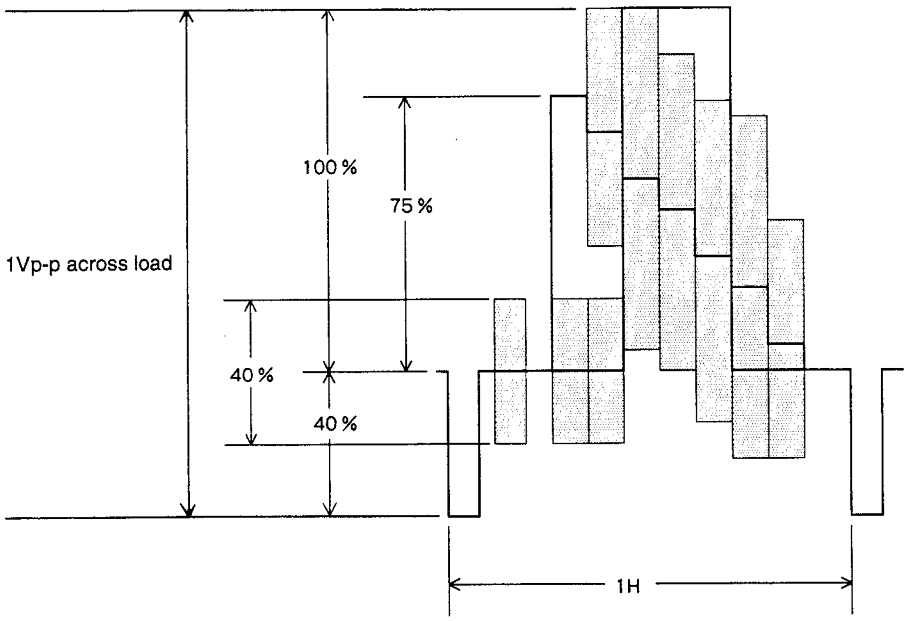
Test Signal

1).Monoscope signal

When you have no monoscope signal source for adjustment, connect the unit to a VCR and play an alignment tape (Monoscope).

2).Color bar signal

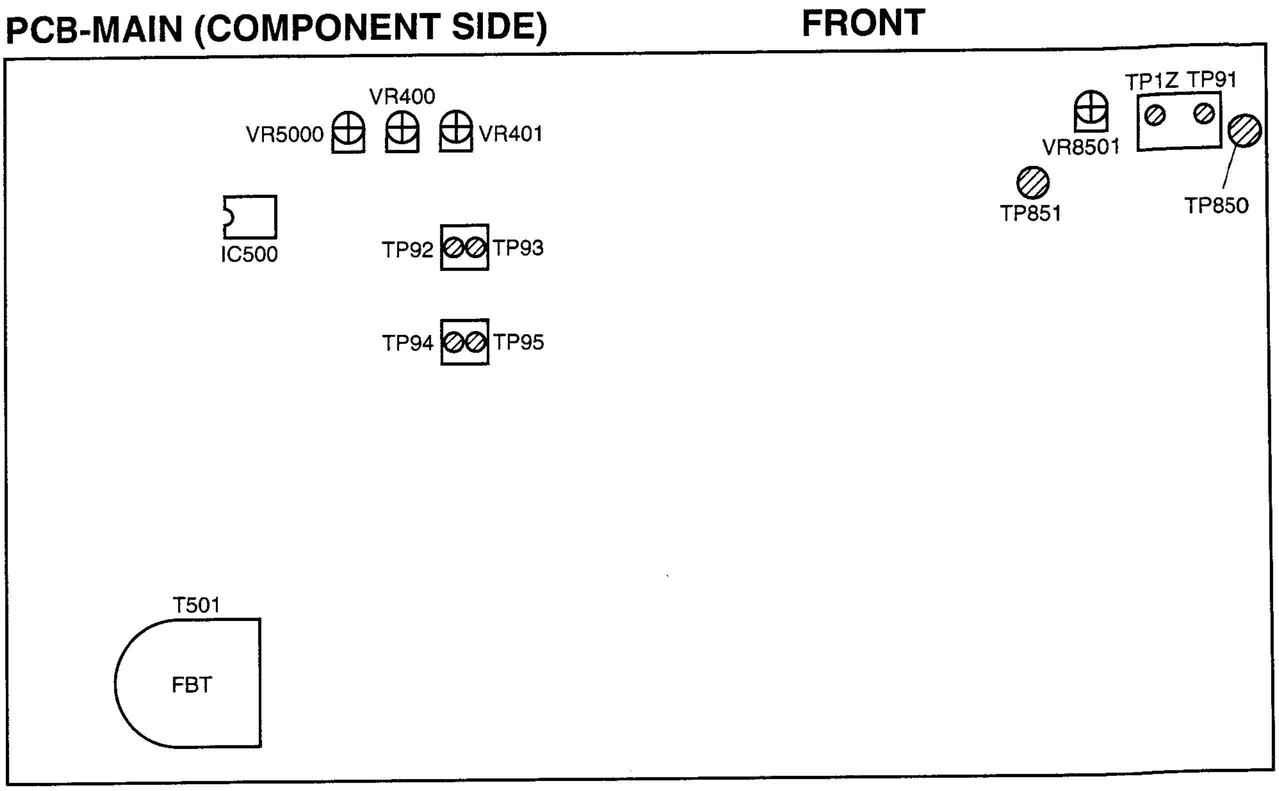
In this manual, unless otherwise specified in particular, use color bar signal in specifications below.



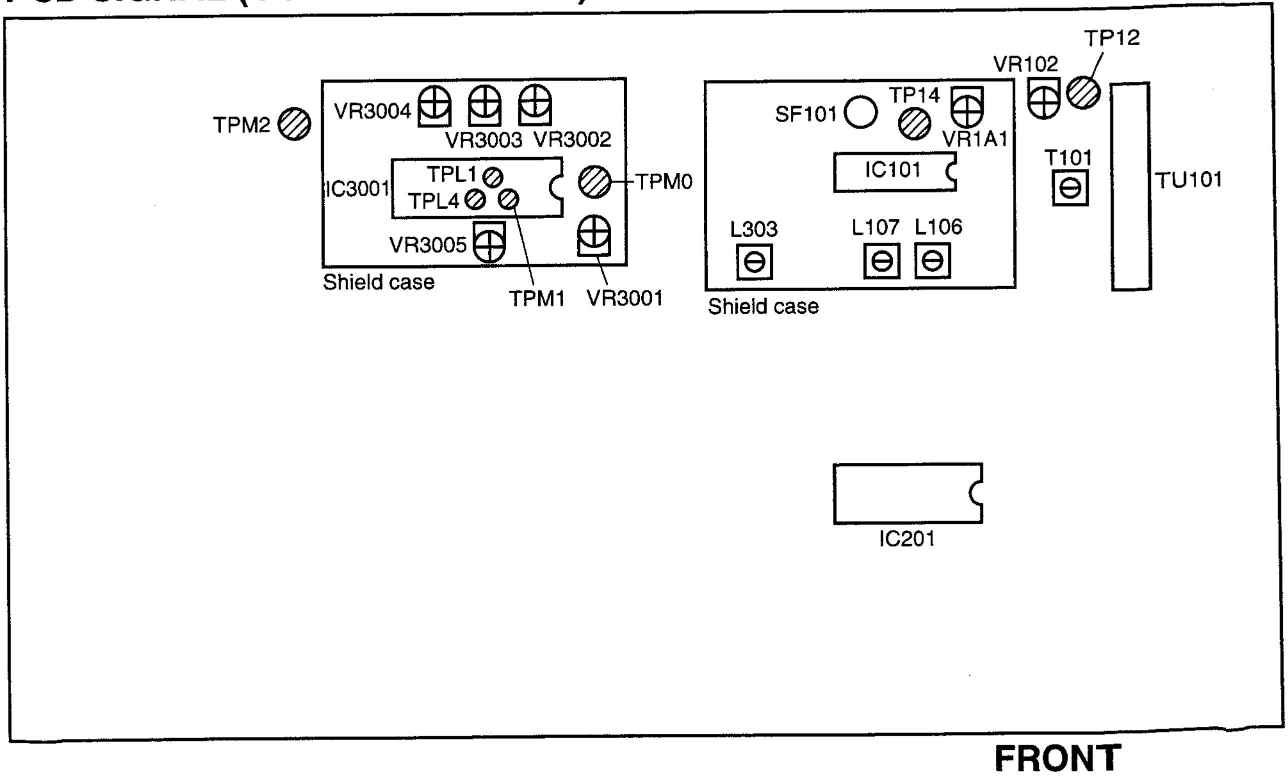
NTSC Split-field color bars with 100% window

LOCATION OF TEST POINTS AND ADJUSTMENTS

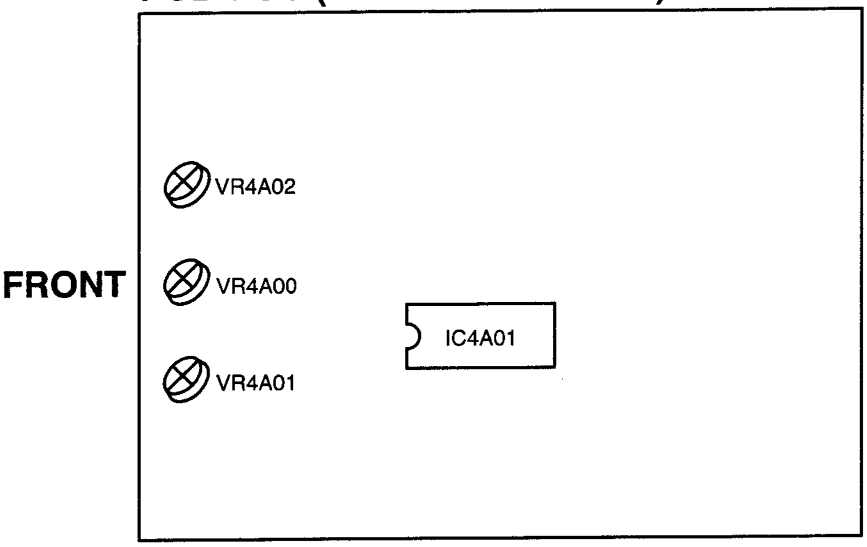
PCB-MAIN (COMPONENT SIDE)


FRONT
VR400
VR5000
VR401
TP1Z TP91
VR8501
TP851
TP850
IC500
TP92
TP93
TP94
TP95
T501
FBT

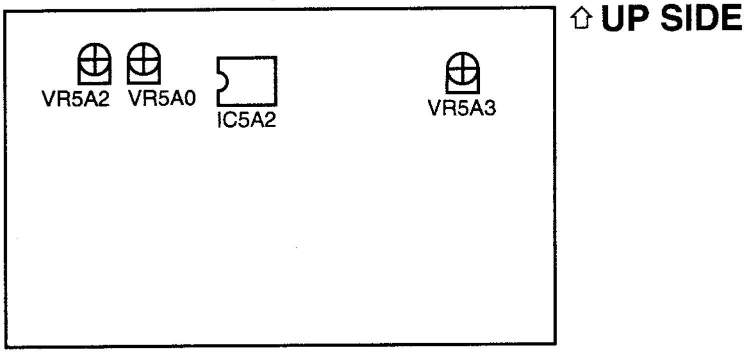
PCB-SIGNAL (COMPONENT SIDE)


TP12
VR102
TPM2
VR3004
VR3003 VR3002
SF101
TP14
VR1A1
IC101
IC3001
TPL1
TPL4
TPM0
T101
TU101
VR3005
L303
L107 L106
Shield case
TPM1 VR3001
Shield case
IC201
FRONT

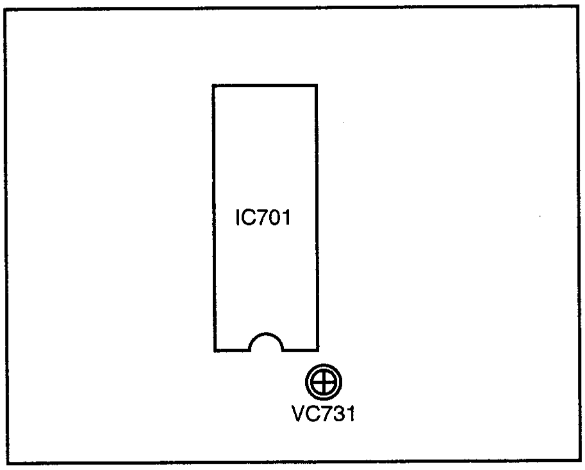
PCB-PCC (COMPONENT SIDE)


VR4A02
FRONT
VR4A00
IC4A01
VR4A01

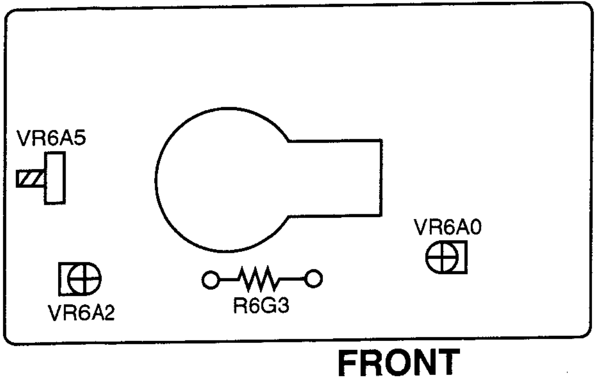
PCB-SIDE-PIN (COMPONENT SIDE)


⇧UP SIDE
VR5A2
VR5A0
IC5A2
VR5A3

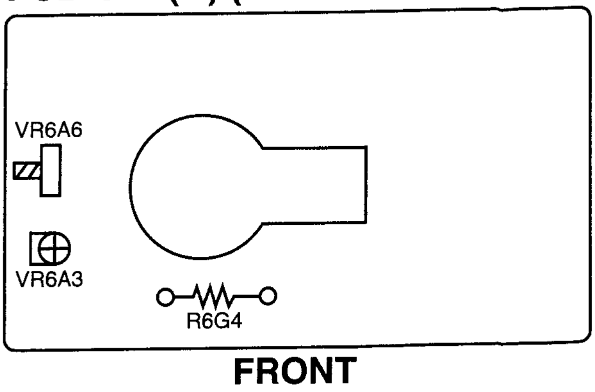
PCB-FS (COMPONENT SIDE)


⇧UP SIDE
IC701
VC731

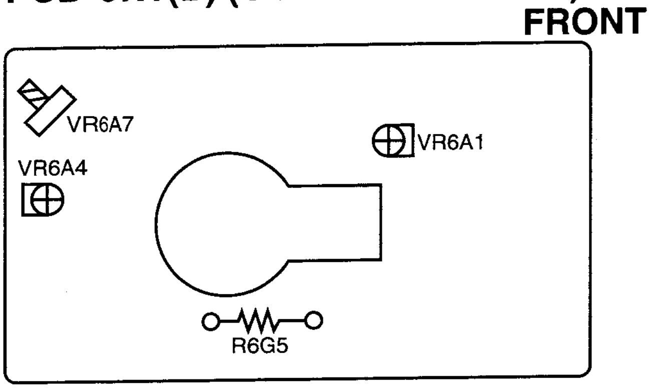
PCB-CRT(R) (COMPONENT SIDE)


VR6A5
VR6A0
VR6A2
R6G3
FRONT

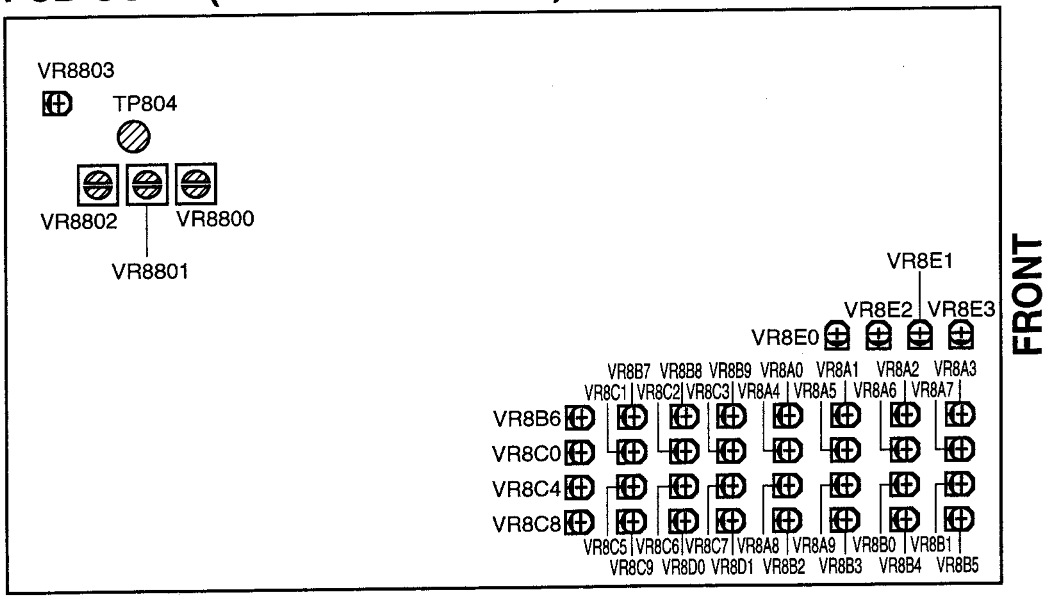
PCB-CRT(G) (COMPONENT SIDE)


VR6A6
VR6A3
R6G4
FRONT

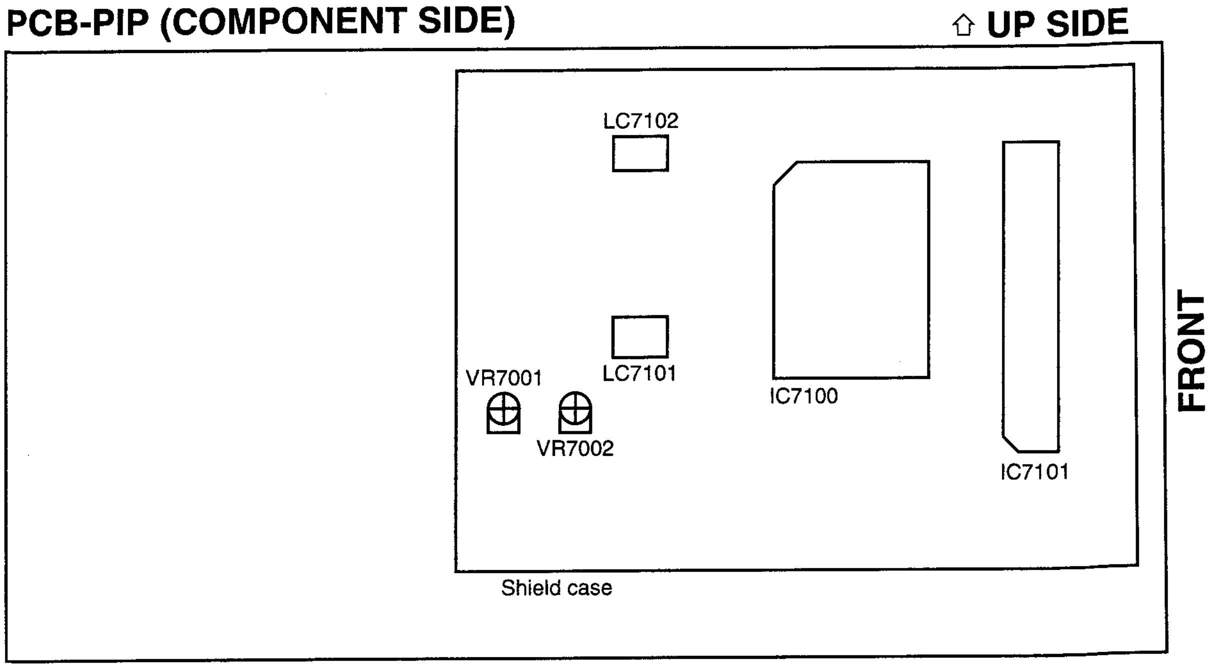
PCB-CRT(B) (COMPONENT SIDE)


FRONT
VR6A7
VR6A1
VR6A4
R6G5

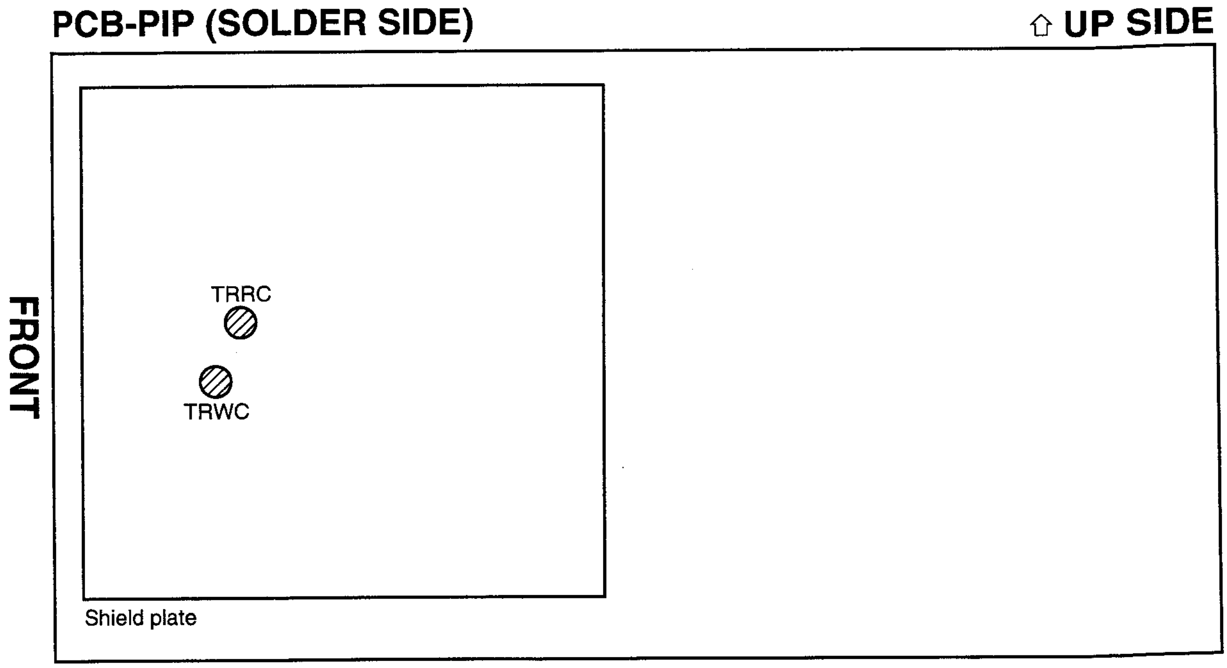
PCB-CONV (COMPONENT SIDE)


VR8803
TP804
VR8802
VR8800
VR8801
VR8E1
VR8E2
VR8E3
VR8E0
FRONT
VR8B7 VR8B8 VR8B9 VR8A0 VR8A1 VR8A2 VR8A3
VR8C1 VR8C2 VR8C3 VR8A4 VR8A5 VR8A6 VR8A7
VR8B6
VR8C0
VR8C4
VR8C8
VR8C5 VR8C6 VR8C7 VR8A8 VR8A9 VR8B0 VR8B1
VR8C9 VR8D0 VR8D1 VR8B2 VR8B3 VR8B4 VR8B5

PCB-PIP (COMPONENT SIDE)


⇧ UP SIDE
LC7102
LC7101
VR7001
VR7002
IC7100
IC7101
FRONT
Shield case

PCB-PIP (SOLDER SIDE)

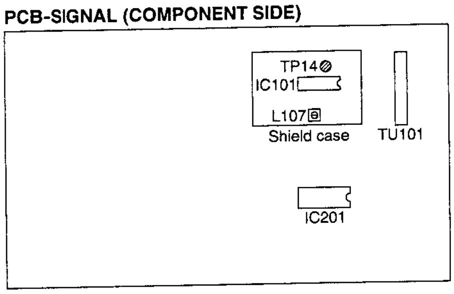

⇧ UP SIDE
FRONT
TRRC
TRWC
Shield plate

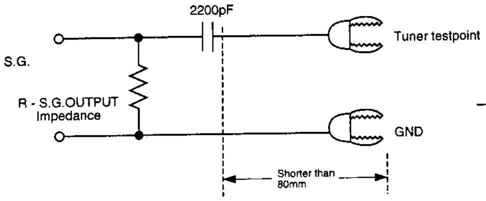
[IF Circuit] 1. VCO Free run frequency	**Adjustment purpose**	Setting VCO free run frequency to IF of picture.
	Symptom when incorrectly adjusted	Impossible setting to the normal frequency when tuning.

Measuring instrument	Oscilloscope
Test point	IC101 pin ㉘
EXT trigger	···
Measurement range	DIV 20mV TIM 2ms
Input signal	Sweep signal (90±2dBμ/load)
Input terminal	Tuner testpoint

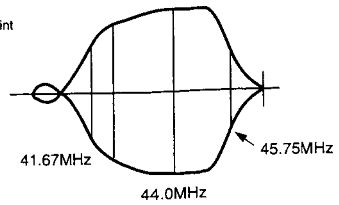
1. Select VHF-High band.
2. Connect IC101 pin ㉕ to the ground via a capacitor (22μF, 16V or more).
3. Connect a sweep generator to the Tuner testpoint using a High pass filter, as shown in Figure. (Use the shield case of Tuner Unit for the ground.)
4. Connect a DC Power supply to TP14.
5. Adjust the voltage of TP14 so that the amplitude of the waveform on the oscilloscope is 1.2Vp-p.
6. Adjust L107 so that the zero beat point is aligned with 45.75MHz marker on the oscilloscope.

PCB-SIGNAL (COMPONENT SIDE)


TP14
IC101
L107
Shield case
TU101
IC201


2200pF
S.G.
Tuner testpoint
R - S.G.OUTPUT Impedance
GND
Shorter than 80mm

High pass filter


41.67MHz
45.75MHz
44.0MHz

7. Remove the Power supply from TP14 and connect TP14 to the ground.
8. Remove the Capacitor from IC101 pin ㉕.
9. Measure the voltage on IC101 pin ㉕.
10. Open TP14.
11. Set the output of a generator to 45.75MHz sine wave and connect to the tuner testpoint using the circuit, as shown in Figure.
12. Adjust L107 so that the voltage reading on IC101 pin ㉕ is the value within ±30mV the reading measured in Item 2 (VIF over all response).

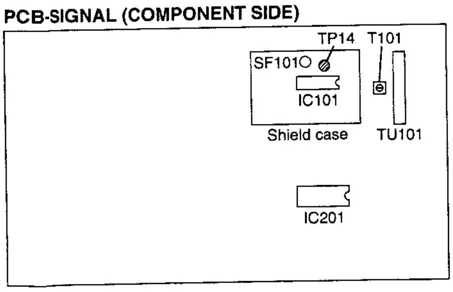
2. VIF over all response	**Adjustment purpose**	Frequency characteristics of VIF detection circuit.
	Symptom when incorrectly adjusted	Too sharp or too soft picture.

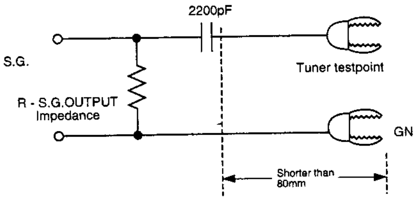
Measuring instrument	Oscilloscope
Test point	IC101 pin ㉘
EXT trigger	···
Measurement range	DIV 20mV TIM 2ms
Input signal	Sweep signal (90±2dBμ/load)
Input terminal	Tuner testpoint

1. Select VHF-High band.
2. Connect a capacitor (50V, 2200pF) across SF101 pins 1 and 4 .
3. Connect a sweep generator to the Tuner testpoint using a High pass filter, as shown in Figure. (Use the shield case of Tuner Unit for the ground.)
4. Connect a DC Power supply to TP14.
5. Observe the waveform at IC101 pin ㉘.
6. Adjust the voltage of TP14 so that the amplitude of the waveform on the oscilloscope is 1.2Vp-p.
7. Adjust T101 to tune the trap frequency to 45.75MHz.
8. Remove a capacitor from SF101 pins ① and ④.
9. Adjust the IF coil in the tuner unit so that the peak amplitude of the waveform on the oscilloscope is around 44.0MHz.
   Make sure that the amplitude at 41.67MHz and 45.75MHz are almost the same as shown the illustration.

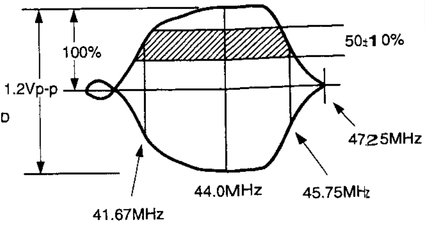
Note: Make sure that there is no dip at 44.0MHz.

PCB-SIGNAL (COMPONENT SIDE)


TP14
T101
SF101
IC101
Shield case
TU101
IC201


2200pF
S.G.
Tuner testpoint
R - S.G.OUTPUT Impedance
GND
Shorter than 80mm

High pass filter


100%
50±10%
1.2Vp-p
47.25MHz
44.0MHz
45.75MHz
41.67MHz

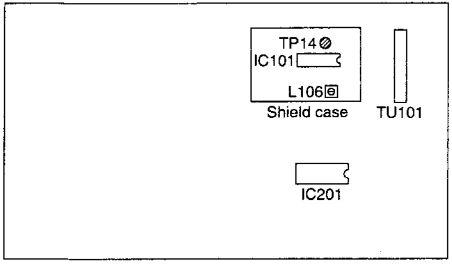
3. AFT	**Adjustment purpose**	Setting frequency to the specified point of AFT circuit.
	Symptom when incorrectly adjusted	Too sharp or too soft picture.

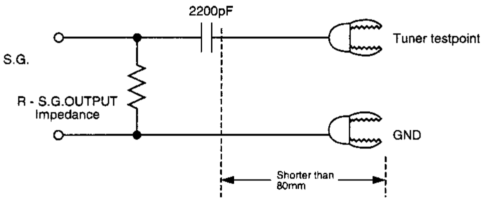
Measuring instrument	DC Voltmeter
Test point	IC101 pin ⑯
EXT trigger	...
Measurement range	...
Input signal	Sinewave signal (45.75MHz, 90dBμ)
Input terminal	Tuner testpoint

* This adjustment must follow Item 1 (VCO Free run frequency).

1. Make sure that TP14 and IC101 pin ㉕ are opened.
2. Connect the generator to the tuner testpoint using a High pass filter, as shown in Figure.
3. Observe the DC voltage at IC101 pin ⑯.
4. Adjust L106 so that the DC voltmeter reads DC 4.5±0.1V.

PCB-SIGNAL (COMPONENT SIDE)


TP14
IC101
L106
Shield case
TU101
IC201


2200pF
S.G.
R - S.G.OUTPUT Impedance
Tuner testpoint
GND
Shorter than 80mm

High pass filter

[AGC circuit] 4. RF AGC	**Adjustment purpose**	Setting RF AGC to optimum point for RF reception.
	Symptom when incorrectly adjusted	Poor S/N ratio or cross modulation.

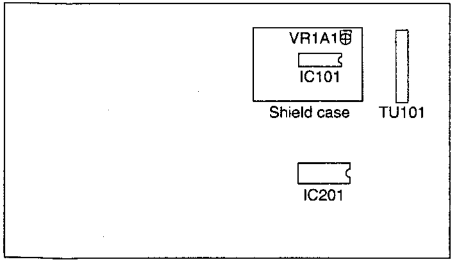
Measuring instrument	...
Test point	...
EXT trigger	...
Measurement range	...
Input signal	RF signal (program)
Input terminal	RF IN terminal

* This adjustment should be done when there is cross modulation or the picture tears horizontally.

* This adjustment must follow Item 3 (AFT).

1. Supply an RF signal (program).
2. Turn on AFT.
3. Adjust VR1A1 until the symptom disappears.

PCB-SIGNAL (COMPONENT SIDE)

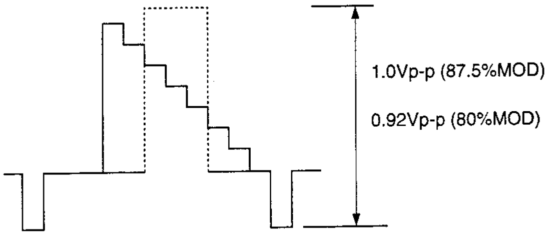

VR1A1
IC101
Shield case
TU101
IC201

5. Video level	**Adjustment purpose**	Setting tuner video level.
	Symptom when incorrectly adjusted	Too bright or too dark picture when receiving broadcast programs.

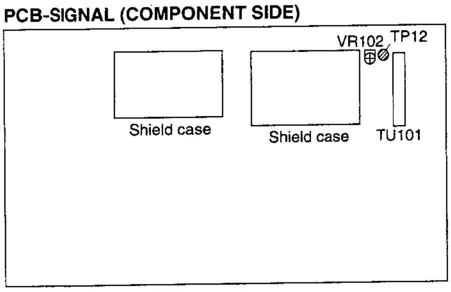
Measuring instrument	Oscilloscope
Test point	TP12
EXT trigger	...
Measurement range	DIV 20mV TIM 10µs
Input signal	RF signal (color bar)
Input terminal	RF IN terminal

* This adjustment must follow Item 3 (AFT).

1. Supply an RF signal (color bar).
2. Observe the waveform at TP12.
3. Adjust VR102 so that the amplitude of the waveform is 1.0Vp-p. (87.5%MOD) or 0.92Vp-p (80.0%MOD)


1.0Vp-p (87.5%MOD)
0.92Vp-p (80%MOD)

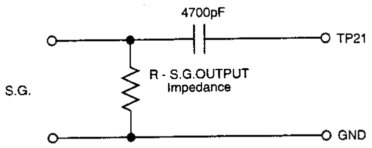
PCB-SIGNAL (COMPONENT SIDE)


VR102
TP12
Shield case
Shield case
TU101

[Audio Circuit] 6. FM Multiplex audio detect	**Adjustment purpose**	The best demodulation of the FM signal.
	Symptom when incorrectly adjusted	Sound distortion or impossible SAP mode detection.

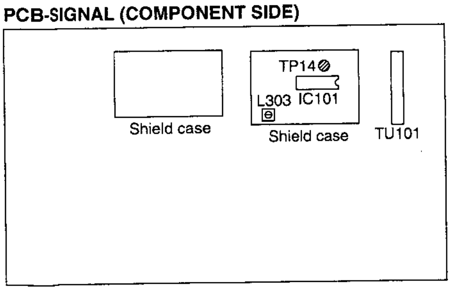
Measuring instrument	DC Voltmeter
Test point	TP22
EXT trigger	...
Measurement range	...
Input signal	Sinewave signal (4.5MHz, 90dBµ)
Input terminal	IC101 pin ⑮

1. Supply a DC 3±0.3V to TP14.
2. Connect a signal generator (0% MOD.) to IC101 pin ⑮ using a High pass filter, as shown in Figure.
3. Observe the DC voltage at TP22.
4. Adjust L303 so that a DC voltmeter reads DC 4.5±0.1V.


4700pF
TP21
S.G.
R - S.G.OUTPUT Impedance
GND

High pass filter

PCB-SIGNAL (COMPONENT SIDE)

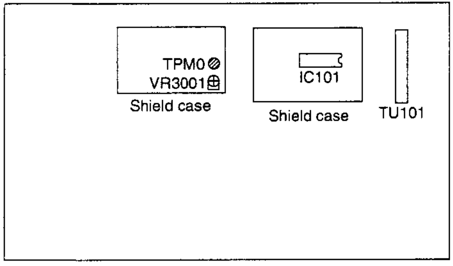

TP14
L303
IC101
Shield case
Shield case
TU101

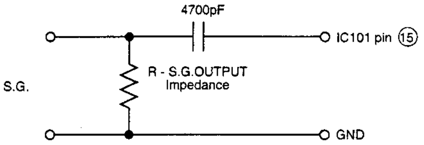
7. Composite level	**Adjustment purpose**	Setting input level of audio detection signal to normal.
	Symptom when incorrectly adjusted	Variable output level or mulfunction of STEREO mode display.

Measuring instrument	Oscilloscope
Test point	TPM0
EXT trigger	···
Measurement range	DIV 20mV TIM 1ms
Input signal	FM signal (4.5MHz, 90dBμ)
Input terminal	IC101 pin ⑮

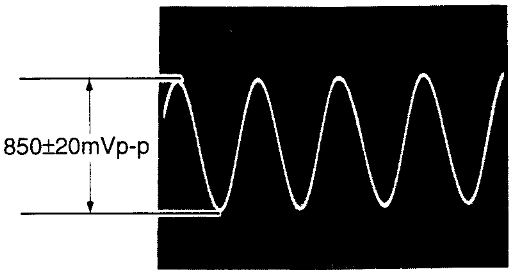
1. Supply an FM modulated signal (400Hz, 100%MOD.) to IC101 pin ⑮ using a High pass filter, as shown in Figure.
2. Observe the waveform at TPM0.
3. Adjust VR3001 so that the amplitude of the waveform on the oscilloscope is 850±20mVp-p.

PCB-SIGNAL (COMPONENT SIDE)


TPM0
VR3001
Shield case
IC101
Shield case
TU101


4700pF
IC101 pin ⑮
S.G.
R - S.G.OUTPUT Impedance
GND

High pass filter

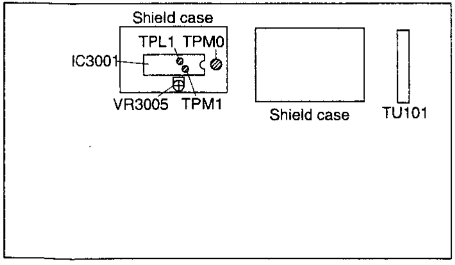


8. Stereo VCO	**Adjustment purpose**	Setting oscillator of multiplex IC to the reference frequency.
	Symptom when incorrectly adjusted	Impossible STEREO mode detection.

Measuring instrument	Frequency counter
Test point	TPM1
EXT trigger	···
Measurement range	···
Input signal	···
Input terminal	···

1. Connect TPL1 to IC3001 pin ⑫ via a resistor (1/4W 100kΩ).
2. Connect the TPM0 to the ground via a capacitor (2200μF, 16V or more).
3. Observe the frequency at TPM1.
4. Adjust VR3005 for 15.73±0.05kHz reading on the frequency counter.
5. Open TPL1 and IC3001 pin ⑫, and remove the capacitor.

PCB-SIGNAL (COMPONENT SIDE)

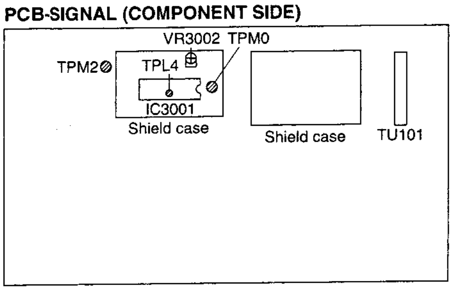

Shield case
TPL1
TPM0
IC3001
VR3005
TPM1
Shield case
TU101

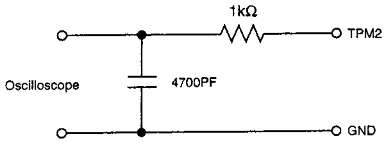
9. Filter	**Adjustment purpose**	Filter for pilot signal.
	Symptom when incorrectly adjusted	Poor S/N ratio of signal for STEREO or SAP mode.

Measuring instrument	Oscilloscope
Test point	TPM2
EXT trigger	···
Measurement range	DIV 20mV TIM 50μs
Input signal	Sinewave signal (15.73kHz, 100mVrms)
Input terminal	TPL4

1. Connector TPM0 to the ground via a capacitor (2200μF, 16V or more).
2. Short-circuit ground and pin ㉗ of IC3001.
3. Set the signal generator output to 15.73kHz, 100mVrms sine wave and connect to TPL4.
4. Observe the waveform at TPM2 using a Low pass filter as shown in Figure.
5. Adjust VR3002 so that the amplitude of the waveform on the oscilloscope is minimum.
6. Open TPL4.

PCB-SIGNAL (COMPONENT SIDE)





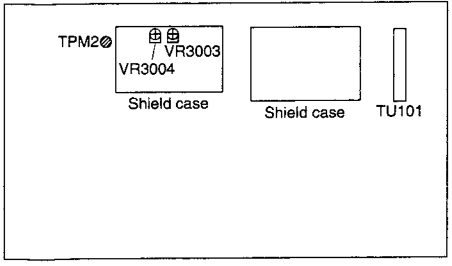
Low pass filter

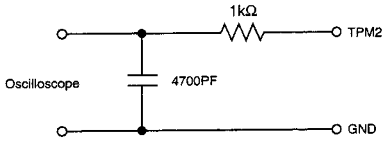
10. Separation and Spectral	**Adjustment purpose**	Separating left and right audio signal.
	Symptom when incorrectly adjusted	One signal will be mixed with the other.

Measuring instrument	Oscilloscope
Test point	TPM2
EXT trigger	···
Measurement range	DIV 10mV TIM 2ms
Input signal	RF signal (multiplex audio)
Input terminal	RF IN terminal

1. Set a multiplex audio signal generator to L-CH only, NR ON, PILOT ON, SAP OUT OFF, TELEMETRY OUT OFF with mudulation at 300Hz, −11dBm.
2. Set an RF modulator to MONO, NR OFF, PILOT OFF, SAP OUT OFF, TELEMETRY OUT OFF, and set to AUDIO mode with 25kHz deviation.
3. Set the output level of an RF modulator to 0dBm.
4. Observe the waveform at TPM2 using a Low pass filter, as shown in Figure.
5. Adjust VR3003 so that an amplitude of the waveform (300Hz) on an oscilloscope is minimum.
6. Change the modulating signal from 300Hz to 3kHz.
7. Adjust VR3004 so that an amplitude of the waveform (3kHz) on an oscilloscope is minimum.
8. Repeat the above steps once more.

PCB-SIGNAL (COMPONENT SIDE)





Low pass filter

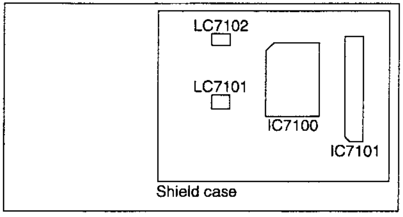
[PIP Circuit] 11. Write clock and Read clock	**Adjustment purpose**	Clock frequency when writing or reading sub picture.
	Symptom when incorrectly adjusted	Shifted sub picture, or sub picture does not appear.

Measuring instrument	Frequency counter
Test point	TRWC TRRC
EXT trigger	···
Measurement range	···
Input signal	Video signal (color bar)
Input terminal	VIDEO IN terminal

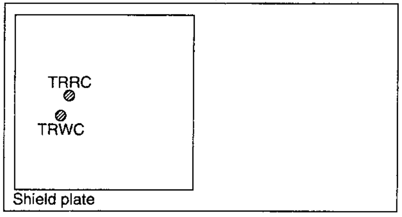
* Preheat the set for two minutes or more.

1. Display the same picture for main and sub picture with PIP button on the remote hand unit.
2. Press the VIDEO DOWN button.
3. Observe the frequency at TRWC. (Use the shield plate for ground.)
4. Adjust LC7102 so that the frequency is 13.81±0.01MHz.
5. Observe the frequency at TRRC. (Use the shield plate for ground.)
6. Adjust LC7101 so that the frequency is 31.3±0.1MHz.
7. Press the VIDEO UP button.

PCB-PIP (COMPONENT SIDE)



PCB-PIP (SOLDER SIDE)

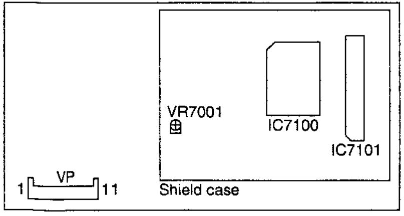


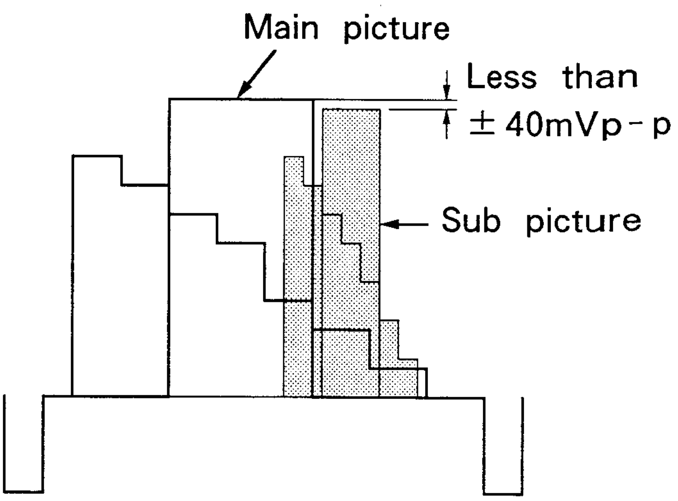
12. Y-Level	**Adjustment purpose**	Y-level of main and sub picture.
	Symptom when incorrectly adjusted	Different brightness between main and sub picture.

Measuring instrument	Oscilloscope
Test point	Pin ⑪ of connector VP
EXT trigger	···
Measurement range	DIV 10mV TIM 10μs
Input signal	Video signal (color bar)
Input terminal	VIDEO IN terminal

1. Display the same color bar for main and sub picture with PIP button on the remote hand unit.
2. Observe the waveform at pin ⑪ of connector VP.
3. Adjust VR7001 so that the amplitude of main and sub pictures level differs less than 40mVp-p.

PCB-PIP (COMPONENT SIDE)





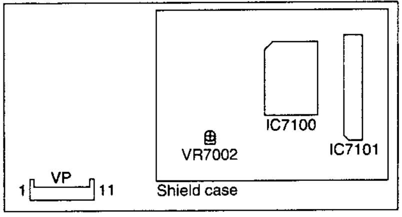
13. Sub chroma gain	**Adjustment purpose**	Color level between main and sub picture.
	Symptom when incorrectly adjusted	Different color level between main and sub picture.

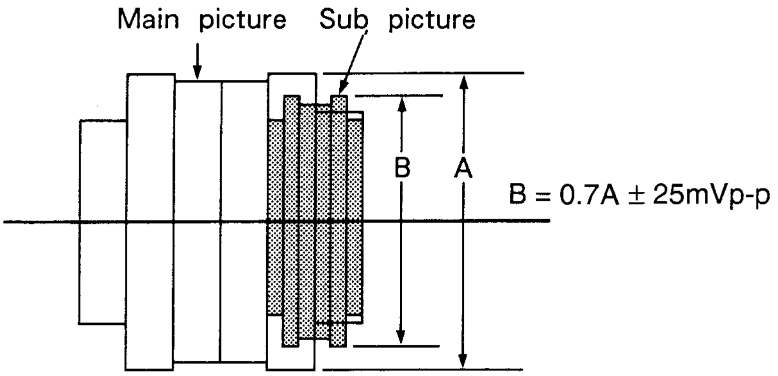
Measuring instrument	Oscilloscope
Test point	Pin ⑨ of connector VP
EXT trigger	···
Measurement range	DIV 5mV TIM 10μs
Input signal	Video signal (color bar)
Input terminal	VIDEO IN terminal

1. Display the same color bar for main and sub picture with PIP button on the remote hand unit.
2. Set VR7002 to the center position.
3. Observe the waveform at pin 9 of connector VP.
4. Adjust VR7002 so that the chroma amplitude of main and sub pictures differ less than 25mVp-p.

Note: Adjustment Item 14 (Sub TINT, Y-DELAY-WRITE) must be performed immediately after this one.

PCB-PIP (COMPONENT SIDE)





14. Sub TINT, Y-DELAY-WRITE	**Adjustment purpose**	Hue between main and sub picture.
	Symptom when incorrectly adjusted	Different hue between main and sub picture and color smear in contour.

Measuring instrument	···
Test point	···
EXT trigger	···
Measurement range	···
Input signal	RF signal (color bar)
Input terminal	RF IN terminal

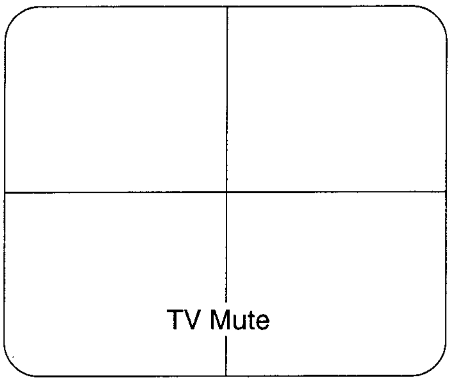
* Preheat the set for a minute or more.

1. Press the MENU button on the remote control.
2. Press the "0", "0" and "7" buttons.
3. Press the PIP button.
4. Press the ADJUST buttons on the remote control to set both hue of the background image and the reduced image in PIP mode to the same.
5. Press the VIDEO UP button four times.
6. Press the ADJUST UP button and keep it until "OF" mark appears.
7. Press the MENU button twice.

15. Character position	**Adjustment purpose**	Character positions on screen.
	Symptom when incorrectly adjusted	Characters shifted to the left, or the right

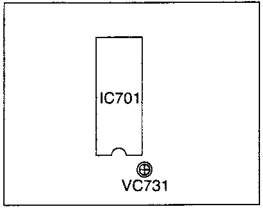
Measuring instrument	…
Test point	…
EXT trigger	…
Measurement range	…
Input signal	Video signal (center cross)
Input terminal	VIDEO IN terminal

1. Press Mute button on the remote hand unit, and display "TV Mute".
2. Adjust VC731 so that the left side of the "U" is at the center of the screen width. (See Figure below)



Figure

PCB-FS (COMPONENT SIDE)

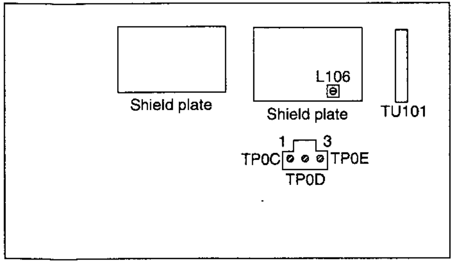


16. AFT2	**Adjustment purpose**	Setting frequency to the specified point of AFT circuit.
	Symptom when incorrectly adjusted	Too sharp or too soft picture, or beats in picture.

Measuring instrument	DC Voltmeter
Test point	TPOC
EXT trigger	…
Measurement range	…
Input signal	RF signal (color bar)
Input terminal	RF IN terminal

1. Supply an RF signal (color bar).
2. Short-circuit TPOE and TPOD.
3. Observe the DC voltage at TPOC.
4. Adjust L106 so that the DC voltmeter reads 2.2±0.1V.

PCB-SIGNAL (COMPONENT SIDE)



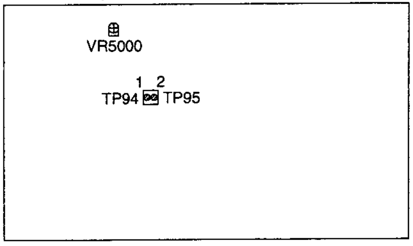
17. High voltage rectifying	**Adjustment purpose**	CRT anode voltage.
	Symptom when incorrectly adjusted	Too dark picture or X-ray protector operating.

Measuring instrument	DC Voltmeter
Test point	(+) lead: TP94 (–) lead: TP95
EXT trigger	...
Measurement range	...
Input signal	Video signal (mono scope)
Input terminal	VIDEO IN terminal

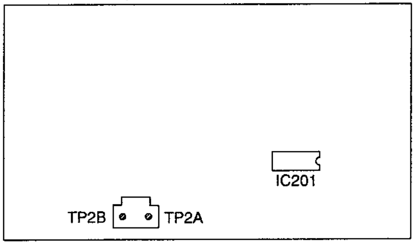
1. VIDEO FUNCTION are RESET.
2. Supply a video signal (mono scope).
3. Observe the DC voltage at TP94 and TP95 (Plus lead to TP94).
4. Short-circuit TP2A and TP2B.
5. Adjust VR5000 so that the voltage is 0.25±0.03V.
6. Open-circuit TP2A and TP2B.

Note: Adjustment 18 (CRT cut off) must be performed immediately after this adjustment.

PCB-MAIN (COMPONENT SIDE)



PCB-SIGNAL (COMPONENT SIDE)



18. CRT cut off	**Adjustment purpose**	Point of electron beam cut off for each electron gun.
	Symptom when incorrectly adjusted	Colored monochrome picture. Too bright or too dark picture.

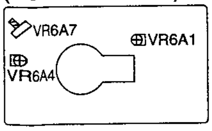
Measuring instrument	Oscilloscope
Test point	TP6A
EXT trigger	...
Measurement range	DIV 5V TIM 10μs
Input signal	Video signal (mono scope)
Input terminal	VIDEO IN terminal

* This adjustment must follow Item 17 (High voltage rectifying).

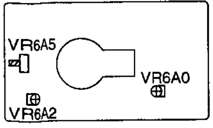
1. Short-circuit TP2A and TP2B.
2. Supply a video signal (monoscope).
3. Set BRIGHT to reset position +11 and CONTRAST to reset position by ADJUST KEY.
4. Turn VR6A5, VR6A6, VR6A7 fully counter-clockwise.
5. Set VR6A2, VR6A3 and VR6A4 to the center position.
6. Set VR6A0, VR6A1 and VR205 to the center position.
7. Observe the waveform at TP6A.
8. Adjust VR205 so that the collector voltage is 200V as shown below.
9. Set VR6A5, VR6A6 and VR6A7 to a point where one RED, GREEN or BLUE line becomes just visible.
10. Open-cicuit TP2A and TP2B.
11. Return BRIGHT and CONTRAST to the reset position.
12. Adjust VR205 so that the black level is optimum.

Note: Adjustment 19 (white balance) must be performed immediately after this adjustment.

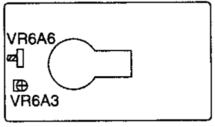
PCB-CRT(B) (COMPONENT SIDE)



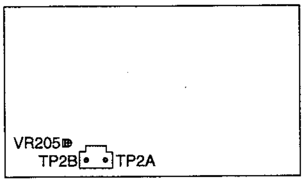
PCB-CRT(R) (COMPONENT SIDE)

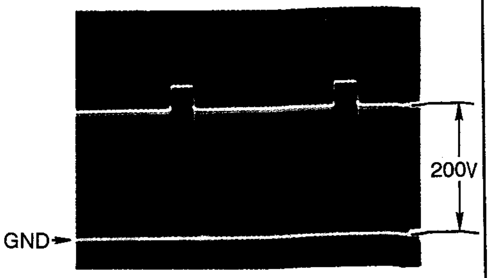


PCB-CRT(G) (COMPONENT SIDE)



PCB-SIGNAL (COMPONENT SIDE)





19. White balance	**Adjustment purpose**	Point of electron beam cut off for each electron gun.
	Symptom when incorrectly adjusted	Colored monochrome picture.

Measuring instrument	DC miliammeter
Test point	R6G3, R6G4, R6G5
EXT trigger	...
Measurement range	...
Input signal	Video signal (white raster)
Input terminal	VIDEO IN terminal

* This adjustment must follow Item 18 (CRT cut off).

* This adjustment must be performed only when focus is good.
If focus is not good, set the focus to good, and then perform this adjustment.

1. Supply a video signal (white raster).
2. VIDEO FUNCTION are RESET.
3. Adjust VR6A0 and VR6A1 so that the current ratios of light tubes are according to the following table.

CRT	Ratio	Current
R	0.42	250µA
G	1.00	595µA
B	0.85	505µA

4. Confirm that the current of Green and blue should not over following table.

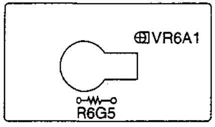
Max Current

	Current
GREEN	630µA
BLUE	580µA

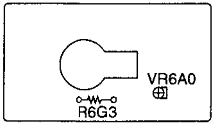
Note: Connecting point (step 2 and 3)
RED : (+) R6G3 (Cathode side), (–) R6G3 (Tr side)
GREEN : (+) R6G4 (Cathode side), (–) R6G4 (Tr side)
BLUE : (+) R6G5 (Cathode side), (–) R6G5 (Tr side)

Note: Adjustment 20 (Video) must be performed immediately after this adjustment.

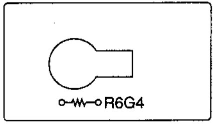
PCB-CRT(B)
(COMPONENT SIDE)



PCB-CRT(R)
(COMPONENT SIDE)



PCB-CRT(G)
(COMPONENT SIDE)



20. Video	**Adjustment purpose**	The best value of beam current.
	Symptom when incorrectly adjusted	Too bright or too dark picture.

Measuring instrument	DC miliammeter
Test point	(+) lead: TP91 (–) lead: TP1Z
EXT trigger	...
Measurement range	...
Input signal	Video signal (gray scale)
Input terminal	VIDEO IN terminal

* This adjustment must follow Item 19 (white balance).

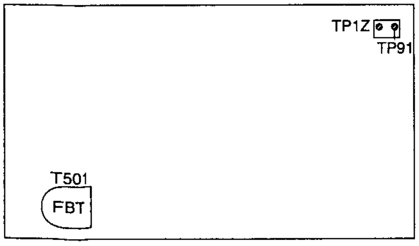
1. Supply a video signal (gray scale).
2. VIDEO FUNCTION are RESET.
3. Short-circuit TP2C and TP2D.
4. Turn VR204 to fully counter clockwise from component side.
5. Observe the DC current at TP91 and TP1Z. (Plus lead to TP91)
6. Adjust VR204 so that a DC miliammeter reads the value shown in the table below.

MODULATION	ADJUST CURRENT
	ALL MODEL
87.5%	500µA

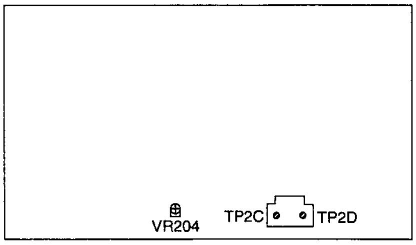
7. Open-circuit TP2C and TP2D.

Note: Adjustment 21 must be performed immediately after this adjustment.

PCB-MAIN (COMPONENT SIDE)



PCB-SIGNAL (COMPONENT SIDE)



21. Top bottom PCC	**Adjustment purpose**	Minimize top and bottom Pincushion distortion.
	Symptom when incorrectly adjusted	Top or bottom of the picture is bowed.

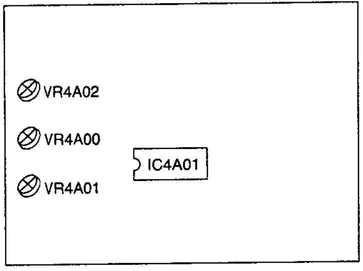
Measuring instrument	...
Test point	...
EXT trigger	...
Measurement range	...
Input signal	Video signal (crosshatch)
Input terminal	VIDEO IN terminal

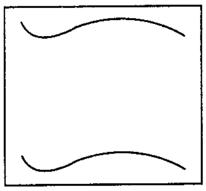
* This adjustment must follow Item 20 (Video).

1. Supply a video signal (crosshatch).
2. Cover the RED and BLUE lenses, producing a green monochrome picture on the screen.
3. Make sure that the horizontal center line on screen is horizontal. If it is not, turn DEFL-YOKE so that the horizontal center line on screen is horizontal.
4. Observe the top and bottom lines.
5. Adjust VR4A00 so that the horizontal top line is straight.
6. Adjust VR4A01 so that the horizontal bottom line is straight.
7. Adjust VR4A02 so that the top and bottom lines are horizontal.

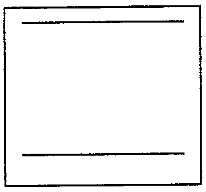
Note: Adjustment 22 (Vertical height, linearity) must be performed immediately after this adjustment.

PCB-PCC (COMPONENT SIDE)





INCORRECT



CORRECT

22. Vertical height, linearity	**Adjustment purpose**	Vertical height, linearity and picture position.
	Symptom when incorrectly adjusted	Vertically improper picture position.

Measuring instrument	...
Test point	...
EXT trigger	...
Measurement range	...
Input signal	Video signal (mono scope)
Input terminal	VIDEO IN terminal

* This adjustment must follow Item 21 (Top bottom PCC).

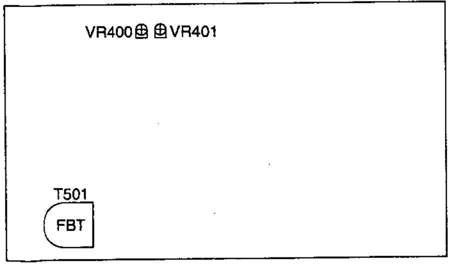
1. VIDEO FUNCTION are RESET.
2. Supply a video signal (monoscope).
3. Cover the RED and BLUE lenses, producing a green monochrome picture on the screen.
4. Adjust VR400 so that the amplitude is 92.6% of the total height of the screen.
5. Adjust VR401 to get a linearity in which picture is symmetric about the horizontal center line.
6. Adjust VR400 so that the markers of the large circle on the monoscope, sum to '4".

Note: Bottom side marker value must be 1.5 or more.

7. If necessary, fine adjust each VR by repeating the above steps.

Note: Adjustment 23 (Horizontal width) must be performed immediately after this adjustment.

PCB-MAIN (COMPONENT SIDE)



23. Horizontal width	**Adjustment purpose**	Horizontal width of picture.
	Symptom when incorrectly adjusted	Picture compressed or expanded horizontally.

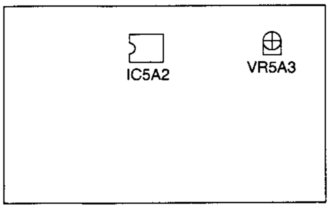
Measuring instrument	...
Test point	...
EXT trigger	...
Measurement range	...
Input signal	Video signal (monoscope)
Input terminal	VIDEO IN terminal

* This adjustment must follow Item 22 (Vertical height, linearity).

* Repeatedly this adjustment and adjustment Item 24 (Horizontal raster deflection correction).

1. Supply a video signal (monoscope).
2. Cover the RED and BLUE lenses, producing a green monochrome on the screen.
3. Adjust horizontal width with VR5A3 so that the sum of markers is 6.

PCB-SIDE-PIN (COMPONENT SIDE)



24. Horizontal raster deflection correction	**Adjustment purpose**	Horizontal linearity of picture.
	Symptom when incorrectly adjusted	Horizontal deflection of picture.

Measuring instrument	...
Test point	...
EXT trigger	...
Measurement range	...
Input signal	Video signal (cross hatch)
Input terminal	VIDEO IN terminal

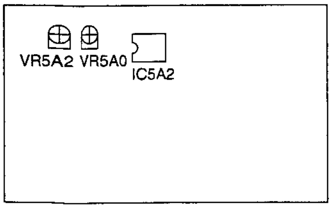
* Repeat this adjustment and item #23 (Horizontal width) until an optional raster is produced.

1. Supply a video signal (crosshatch).
2. Cover the RED and BLUE lenses, producing a green monochrome on the screen.
3. Adjust VR5A2 so that the keystone on the screen is minimum.
4. Adjust VR5A0 so that the vertical lines of both sides is linear.

Note: Make sure that the keystone is minimum after step 4. If it is not, repeat the adjustment of step 3.

Note: Adjustment 25 (FOCUS) must be performed immediately after this adjustment.

PCB-SIDE-PIN (COMPONENT SIDE)



25. FOCUS	**Adjustment purpose** Sharpness of picture. **Symptom when incorrectly adjusted** Poor sharpness of picture.

Measuring instrument	...
Test point	...
EXT trigger	...
Measurement range	...
Input signal	Video signal (center cross)
Input terminal	VIDEO IN terminal

* This adjustment must follow Item 24 (Horizontal raster deflection correction).

* This adjustment should be performed only when CRT is replaced or reinstalled. You must not adjust the alignment magnet and the focus magnet except when replacing or reinstalling the CRT.

* To each CRT, red, green and blue, make sure that the deflection yoke, the focus magnet and the alignment magnet on the CRT neck are assembled to the specified positions. (See Fig. A)

* When adjusting one of the CRTs, the others should be shielded.

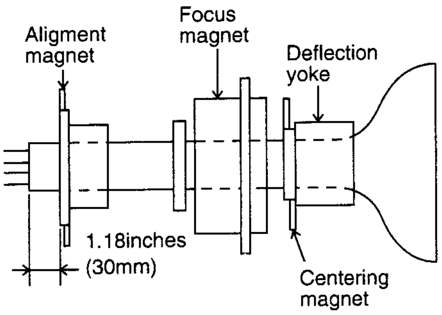
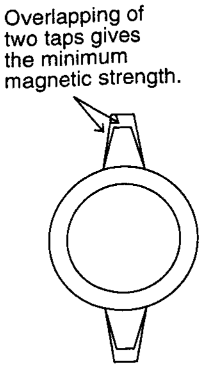


Fig. A


Overlapping of two taps gives the minimum magnetic strength.

Alignment Magnets
Fig. B

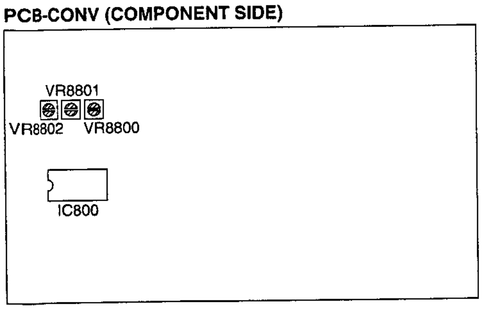
Note: Position deflection yoke and focus magnet assembly together so that there is no space between these parts.

1. Supply a video signal (center cross signal).
2. Rotate or open a centering magnet so that picture is located at the center on the screen.

Note: If adjusting a red or a blue CRT, adjust a green CRT at first, and the red or the blue so that the red or the blue picture lies on the green.

3. Minimize the magnetic strength of the alignment magnet. (See Fig. B)
4. Turn a focus control of a color required, VR8800(R), VR8801(G) or VR8802(B) full counterclockwise to produce halo on the screen. (See Fig. C. Contrary to blooming, a picture with the "wicks" at the center.)
5. Check where the center position of the intersection of the center cross line is on the screen (See Fig. C)
6. Turn a focus control of a color required, VR8800(R), VR8801(G) or VR8802(B) full clockwise to produce blooming on the screen. (See Fig. C, a picture without with "wicks" at the center.)
7. Check where the center position of the intersection of the center cross line is on the screen (See Fig. D)

PCB-CONV (COMPONENT SIDE)



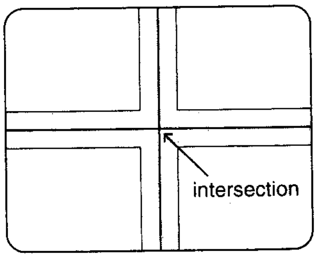


Fig. C
Halo

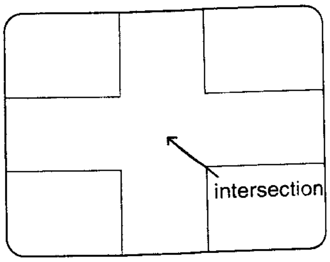


Fig. D
Blooming

8. Rotate the focus magnet and turn or open the alignment magnet to locate both intersections under halo and blooming conditions to the same position.
9. Adjust a focus control required so that the focus is the best.

Note: Adjustment 26 (Electrical magnetic focus) must be performed immediately after this one.

26. Electrical magnetic focus	**Adjustment purpose**	The best resolution of picture.
	Symptom when incorrectly adjusted	Out of focus picture.

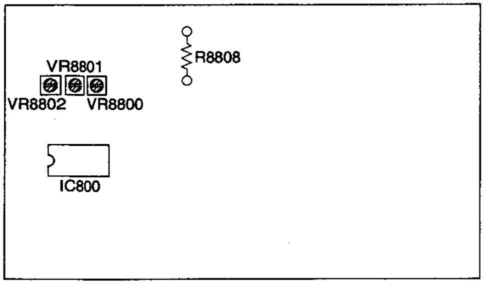
Measuring instrument	DC Voltmeter
Test point	R8808
EXT trigger	···
Measurement range	···
Input signal	Video signal (monoscope, cross hatch)
Input terminal	VIDEO IN terminal

* This adjustment must follow Item 25 (FOCUS).

1. Supply a video signal (monoscope).
2. VIDEO FUNCTION are RESET.
3. Adjust VR8800, VR8801 and VR8802 so that the sharpness of the Top area on screen is optimum.
4. Adjust VR8802 so that the voltage across R8808 is decreased 3.2V.
5. Supply a video signal (crosshatch).
6. Make sure that the red width is equal to the green width. If it is not, adjust VR8800 so that the red width is equal to the green width.

Note: Adjustment 27 (Dynamic focus phase) must be performed immediately after this one.

PCB-CONV (COMPONENT SIDE)



27. Dynamic focus phase	**Adjustment purpose**	The best ambient resolution of picture.
	Symptom when incorrectly adjusted	Dull ambient picture.

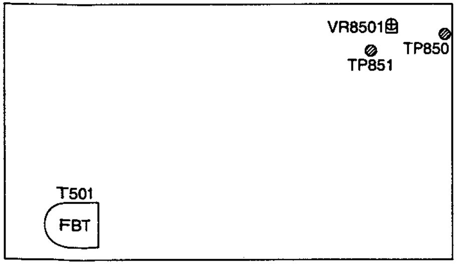
Measuring instrument	Oscilloscope
Test point	TP851, TP850
EXT trigger	···
Measurement range	DIV 2V TIM 20µs
Input signal	Video signal (monoscope)
Input terminal	VIDEO IN terminal

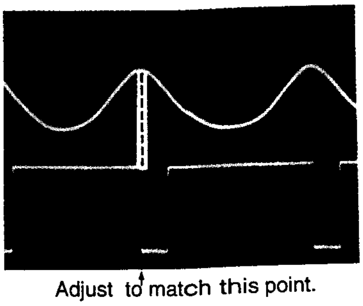
* This adjustment must follow Item 26 (Electrical magnetic focus).

1. Supply a video signal (monoscope).
2. Observe the waveform at TP851 and TP850. (CH-1 to TP851)
3. Adjust VR8501 so that a discontinuous point of the waveform on CH-1 coincide with a falling edge of the waveform on CH-2 as below.

Note: Adjustment 28 (Static convergence) must be performed immediately after this one.

PCB-MAIN (COMPONENT SIDE)





Adjust to match this point.

28. Static convergence	**Adjustment purpose**	Correcting color impurity by installed direction.
	Symptom when incorrectly adjusted	Color edging around objects in the picture.

Measuring instrument	…
Test point	…
EXT trigger	…
Measurement range	…
Input signal	Video signal (cross hatch)
Input terminal	VIDEO IN terminal

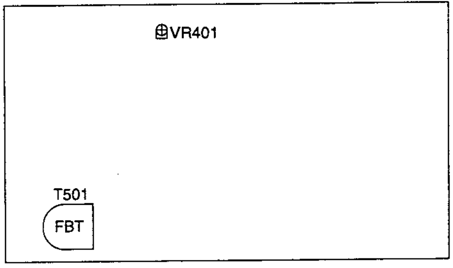
* This adjustment must follow Item 27 (Dynamic focus phase).

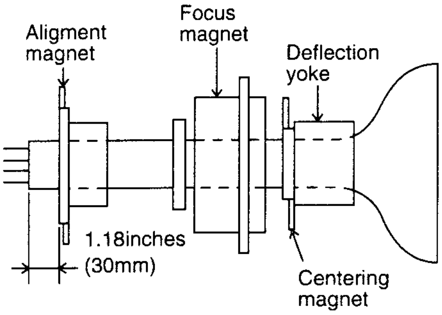
1. Supply a VIDEO signal. (cross hatch)
2. VIDEO FUNCTION are RESET.
3. Degauss the metal around the CRT. Be sure not to DE-magnetize the focus magnet.
4. Adjust VR401 for rough vertical linearity.
5. Feed an external cross-hatch generator signal.
6. Adjust green centering magnet to center the green cross-hatch in the center of the screen.
7. Adjust red and blue centering magnets to converge red and blue cross-hatch to the green cross-hatch at the center of the screen.

Note:
Do not use the internally generated crossbar pattern for this adjustment procedure, since the center of the internal crossbar pattern will not necessarily be located in the center of the screen.

Note: Adjustment 29 (Dynamic convergence) must be performed immediately after this adjustment.

PCB-MAIN (COMPONENT SIDE)





29. Dynamic convergence	**Adjustment purpose**	To converge the edges of the picture.
	Symptom when incorrectly adjusted	Color fringing at the edges of the picture.

Measuring instrument	...
Test point	...
EXT trigger	...
Measurement range	...
Input signal	Video signal (cross hatch)
Input terminal	VIDEO IN terminal

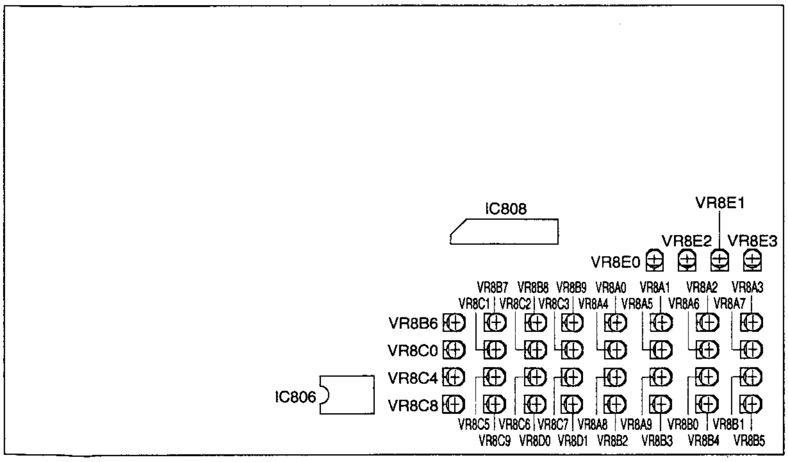
* This adjustment must follow the adjustment in Item 28.

* Dynamic Convergence should not be attempted until the Static Convergence has been properly adjusted (including centering adjustments, if required).

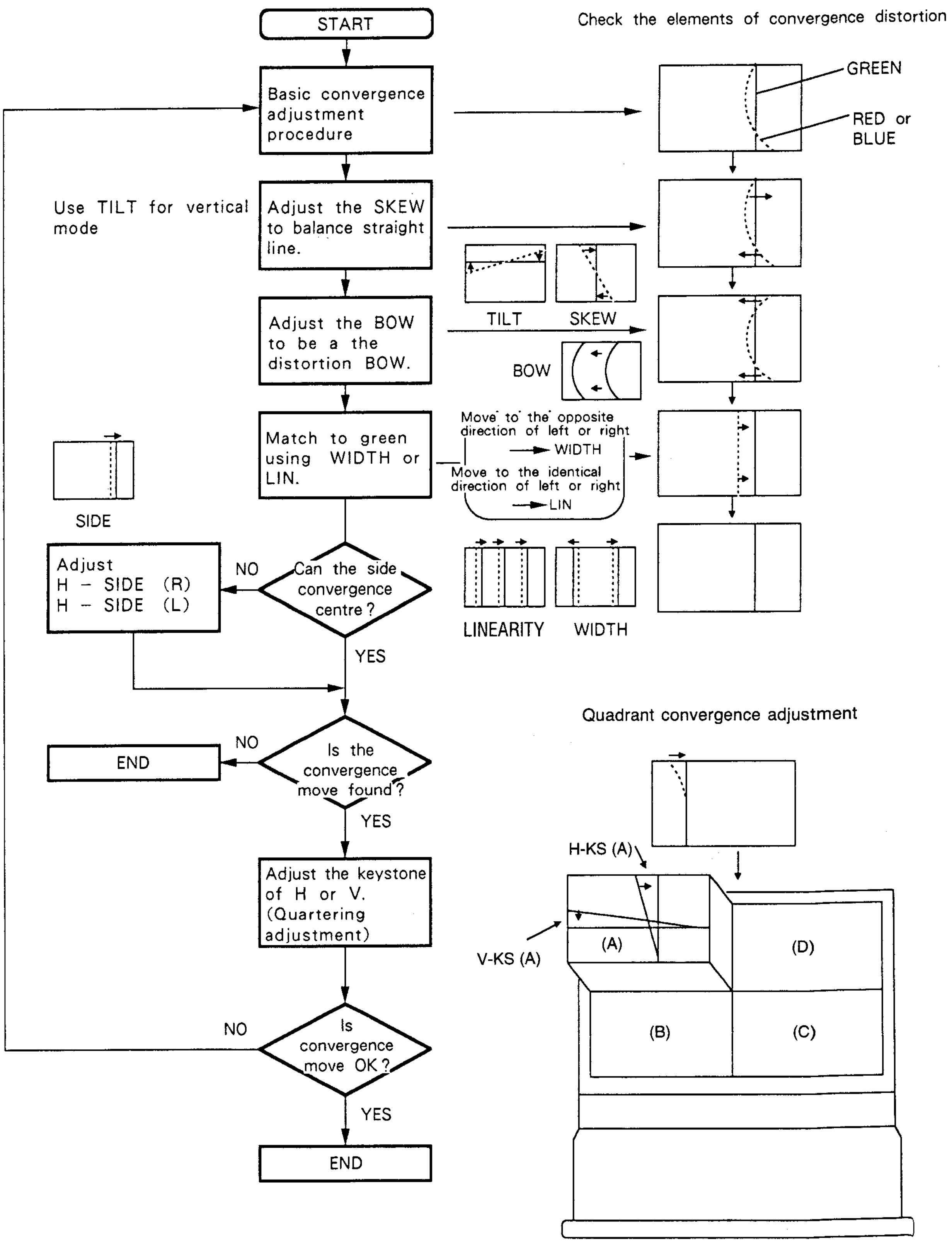
In this adjustment, green is stationary, and only red and blue are adjustable. Accordingly, the red and blue lines are converged to the green line with a convergence adjustment flowchart on the following page. Convergence is simplified when working with only two colors. First, adjust the red controls to converge the red lines to the green lines, then adjust the blue controls to converge the blue lines to the green lines.

Red	Blue	Item	Adjusting Method
VR8A2	VR8A0	Vertical tilt	Merge horizontal centre line with green line
VR8B0	VR8A8	Vertical height	Merge horizontal line with green line
VR8B4	VR8B2	Vertical linearity	Merge horizontal line with green line
VR8A6	VR8A4	Vertical bow	Merge horizontal centre line with green line
VR8B1	VR8A9	Skew	Merge vertical centre line with green line
VR8B5	VR8B3	Horizontal bow	Merge vertical centre line with green line
VR8A3	VR8A1	Horizontal width	Merge vertical centre line with green line
VR8A7	VR8A5	Horizontal linearity	Merge vertical centre line with green line
VR8B9	VR8B7	Horizontal keystone	Merge upper left vertical line with green line (A)
VR8C3	VR8C1	Horizontal keystone	Merge lower left vertical line with green line (B)
VR8C7	VR8C5	Horizontal keystone	Merge lower right vertical line with green line (C)
VR8D1	VR8C9	Horizontal keystone	Merge upper right vertical line with green line (D)
VR8B8	VR8B6	Vertical keystone	Merge upper left horizontal line with green line (A)
VR8C2	VR8C0	Vertical keystone	Merge lower left horizontal line with green line (B)
VR8C6	VR8C4	Vertical keystone	Merge lower right horizontal line with green line (C)
VR8D0	VR8C8	Vertical keystone	Merge upper right horizontal line with green line (D)
VR8E2	VR8E3	Horizontal side linearity	Merge left vertical line with green line
VR8E1	VR8E0	Horizontal side	Merge right vertical line with green line

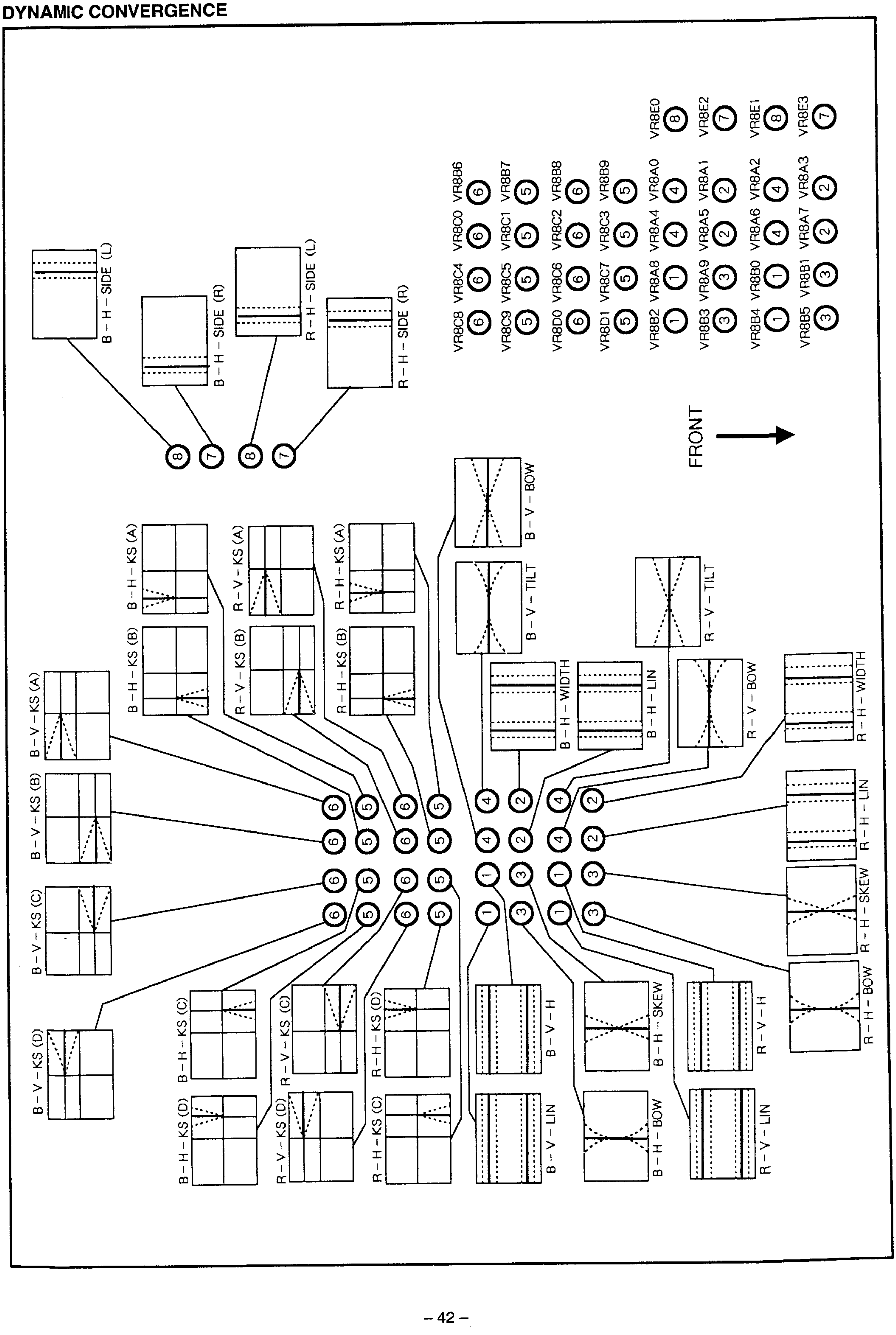
PCB-CONV (COMPONENT SIDE)



Convergence adjustment flowchart


START
Basic convergence adjustment procedure
Use TILT for vertical mode
Adjust the SKEW to balance straight line.
Adjust the BOW to be a the distortion BOW.
Match to green using WIDTH or LIN.
SIDE
Adjust
H – SIDE (R)
H – SIDE (L)
NO
Can the side convergence centre ?
YES
END
NO
Is the convergence move found ?
YES
Adjust the keystone of H or V. (Quartering adjustment)
NO
Is convergence move OK ?
YES
END
Check the elements of convergence distortion
GREEN
RED or BLUE
TILT
SKEW
BOW
Move to the opposite direction of left or right
WIDTH
Move to the identical direction of left or right
LIN
LINEARITY
WIDTH
Quadrant convergence adjustment
H-KS (A)
V-KS (A)
(A)
(B)
(C)
(D)

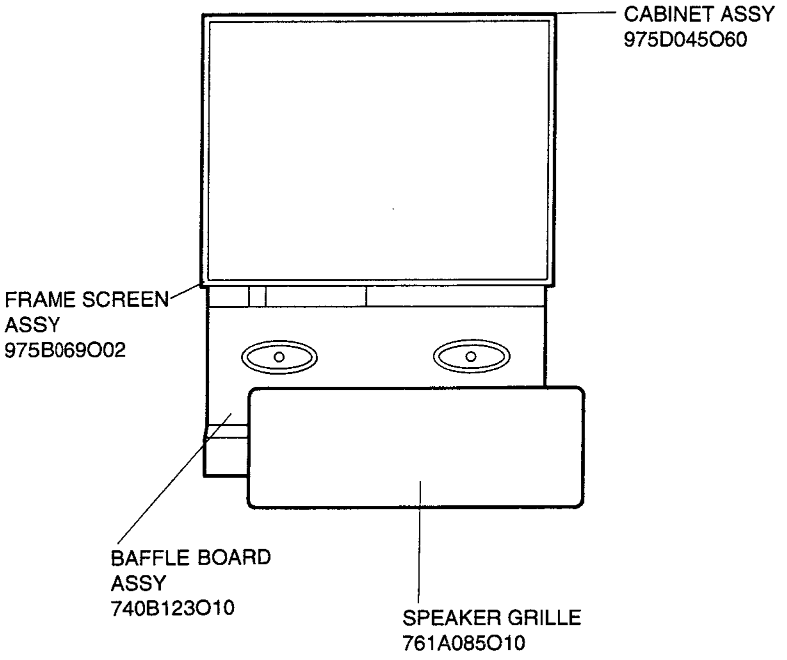
DYNAMIC CONVERGENCE

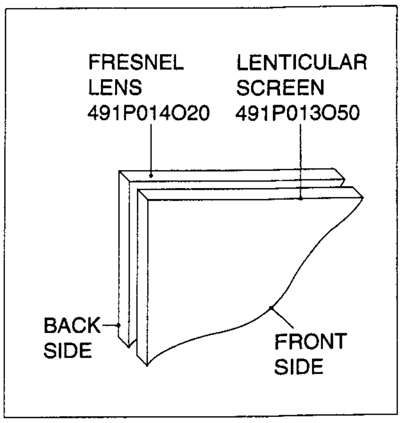


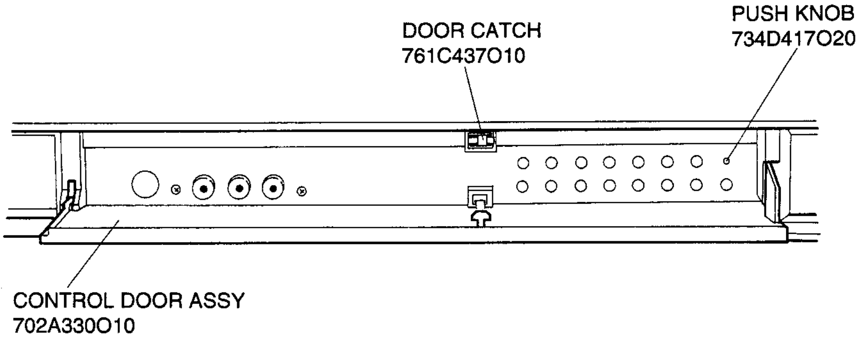
VR8C8 ⑥ VR8C4 ⑥ VR8C0 ⑥ VR8B6 ⑥
VR8C9 ⑤ VR8C5 ⑤ VR8C1 ⑤ VR8B7 ⑤
VR8D0 ⑥ VR8C6 ⑥ VR8C2 ⑥ VR8B8 ⑥
VR8D1 ⑤ VR8C7 ⑤ VR8C3 ⑤ VR8B9 ⑤
VR8B2 ① VR8A8 ① VR8A4 ④ VR8A0 ④ VR8E0 ⑧
VR8B3 ③ VR8A9 ③ VR8A5 ② VR8A1 ② VR8E2 ⑦
VR8B4 ① VR8B0 ① VR8A6 ④ VR8A2 ④ VR8E1 ⑧
VR8B5 ③ VR8B1 ③ VR8A7 ② VR8A3 ② VR8E3 ⑦
FRONT
B-H-SIDE (L)
B-H-SIDE (R)
R-H-SIDE (L)
R-H-SIDE (R)
B-V-BOW
B-V-TILT
R-V-TILT
B-H-KS (A)
R-V-KS (A)
R-H-KS (A)
B-H-KS (B)
R-V-KS (B)
R-H-KS (B)
B-V-KS (A)
B-V-KS (B)
B-V-KS (C)
B-V-KS (D)
B-H-WIDTH
B-H-LIN
R-V-BOW
R-H-WIDTH
R-H-LIN
R-H-SKEW
R-H-BOW
B-H-KS (C)
R-V-KS (C)
R-H-KS (D)
B-V-H
B-H-SKEW
R-V-H
B-H-KS (D)
R-V-KS (D)
R-H-KS (C)
B-V-LIN
B-H-BOW
R-V-LIN

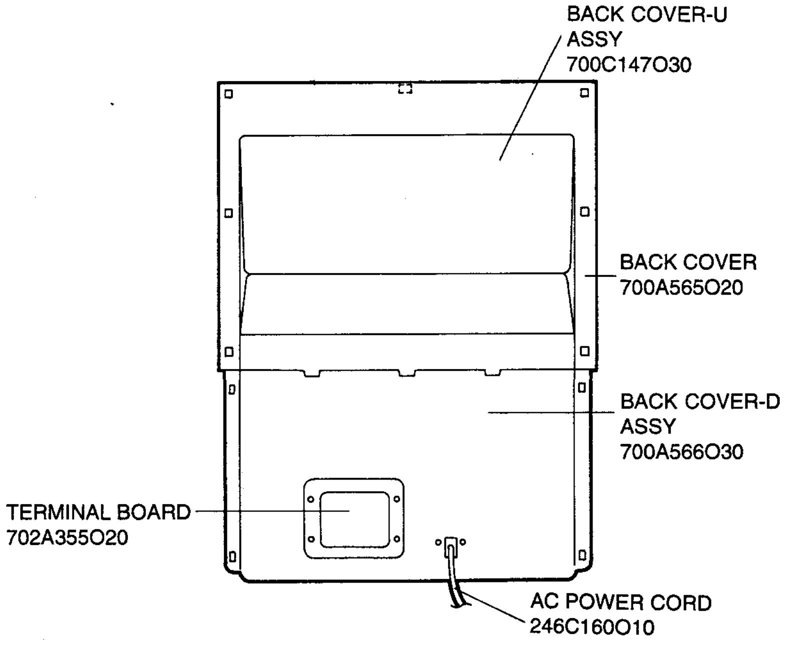
CABINET AND SCREEN PARTS

[40"]


CABINET ASSY
975D045O60
FRAME SCREEN ASSY
975B069O02
BAFFLE BOARD ASSY
740B123O10
SPEAKER GRILLE
761A085O10

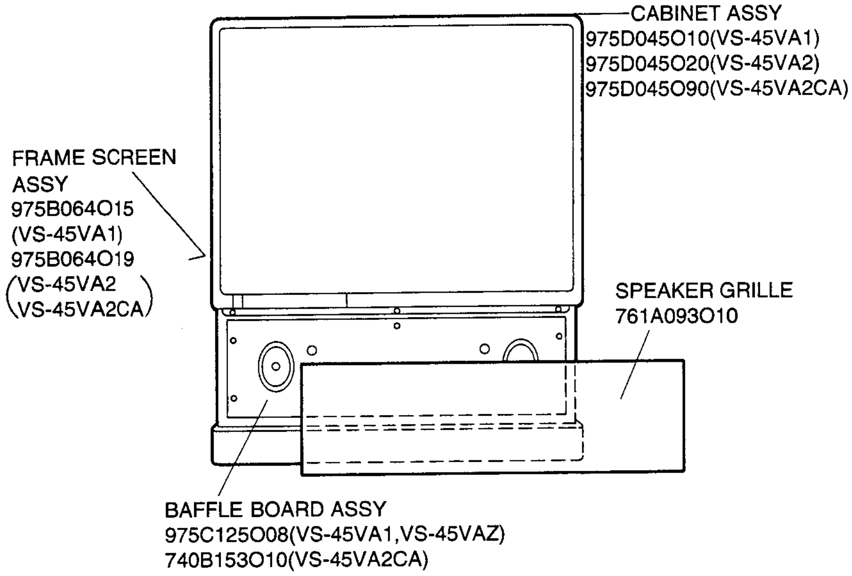

FRESNEL LENS
491P014O20
LENTICULAR SCREEN
491P013O50
BACK SIDE
FRONT SIDE

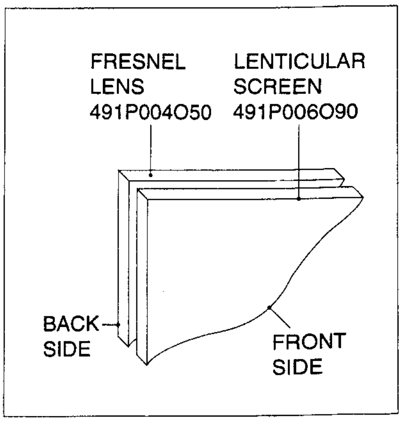

DOOR CATCH
761C437O10
PUSH KNOB
734D417O20
CONTROL DOOR ASSY
702A330O10

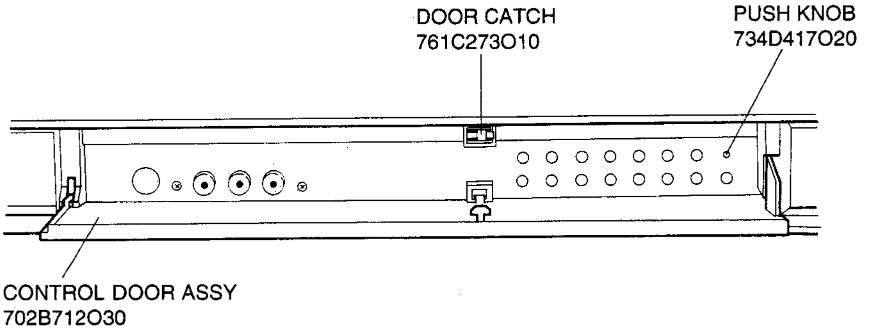

BACK COVER-U ASSY
700C147O30
BACK COVER
700A565O20
BACK COVER-D ASSY
700A566O30
TERMINAL BOARD
702A355O20
AC POWER CORD
246C160O10

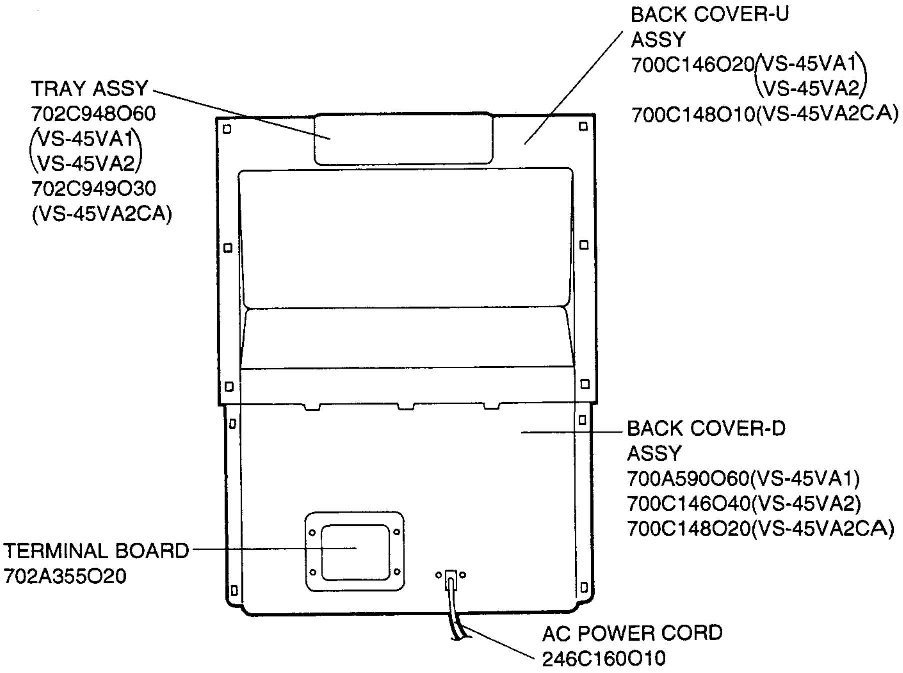
CABINET AND SCREEN PARTS

[45"]


CABINET ASSY
975D045O10(VS-45VA1)
975D045O20(VS-45VA2)
975D045O90(VS-45VA2CA)
FRAME SCREEN ASSY
975B064O15 (VS-45VA1)
975B064O19 (VS-45VA2 VS-45VA2CA)
SPEAKER GRILLE
761A093O10
BAFFLE BOARD ASSY
975C125O08(VS-45VA1,VS-45VAZ)
740B153O10(VS-45VA2CA)

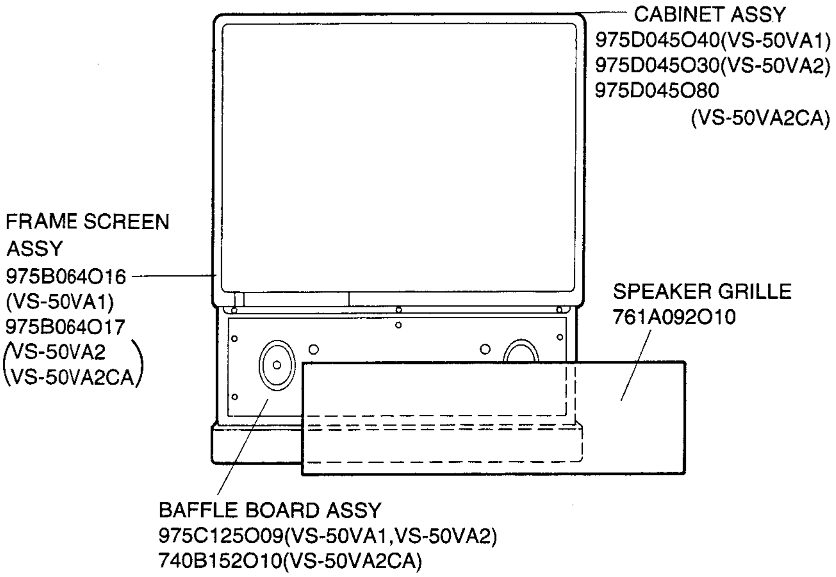

FRESNEL LENS
491P004O50
LENTICULAR SCREEN
491P006O90
BACK SIDE
FRONT SIDE


DOOR CATCH
761C273O10
PUSH KNOB
734D417O20
CONTROL DOOR ASSY
702B712O30

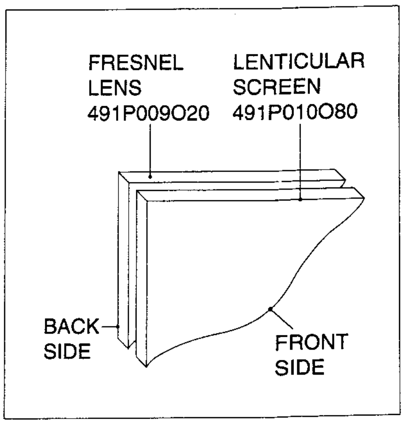

BACK COVER-U ASSY
700C146O20 (VS-45VA1 VS-45VA2)
700C148O10(VS-45VA2CA)
TRAY ASSY
702C948O60 (VS-45VA1 VS-45VA2)
702C949O30 (VS-45VA2CA)
BACK COVER-D ASSY
700A590O60(VS-45VA1)
700C146O40(VS-45VA2)
700C148O20(VS-45VA2CA)
TERMINAL BOARD
702A355O20
AC POWER CORD
246C160O10

CABINET AND SCREEN PARTS

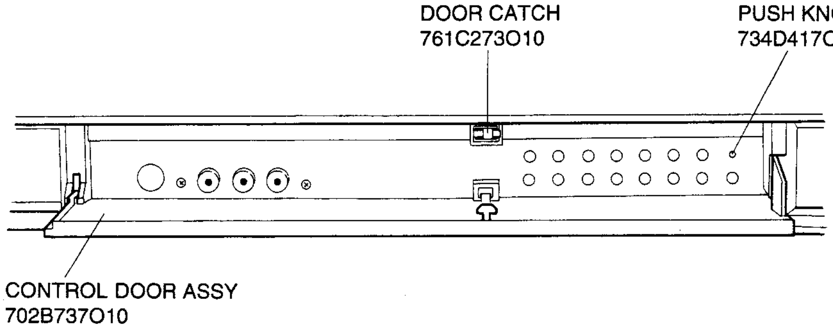
[50"]



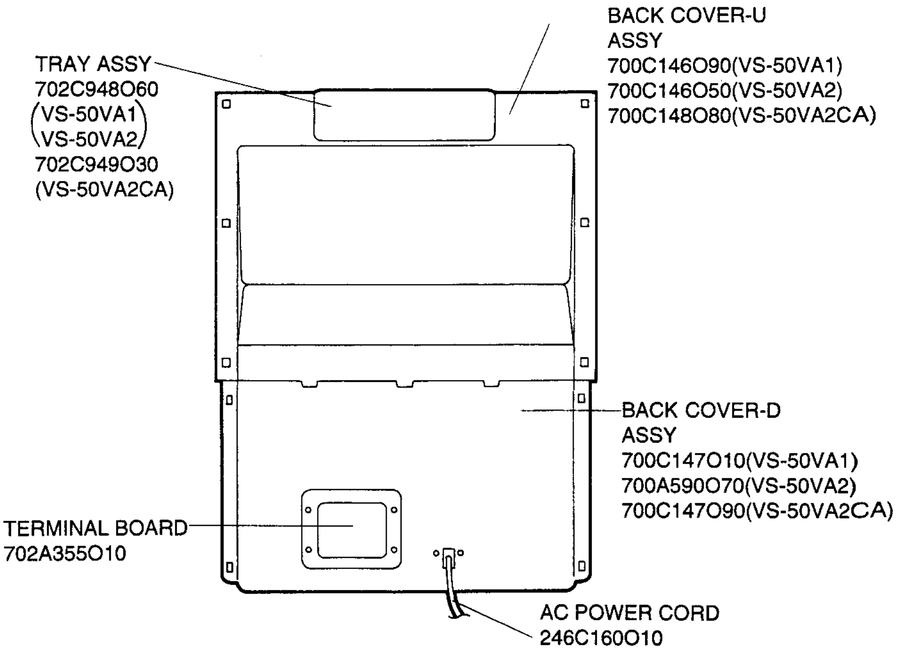
CABINET ASSY
975D045O40(VS-50VA1)
975D045O30(VS-50VA2)
975D045O80
(VS-50VA2CA)
FRAME SCREEN
ASSY
975B064O16
(VS-50VA1)
975B064O17
(VS-50VA2
VS-50VA2CA)
SPEAKER GRILLE
761A092O10
BAFFLE BOARD ASSY
975C125O09(VS-50VA1,VS-50VA2)
740B152O10(VS-50VA2CA)



FRESNEL
LENS
491P009O20
LENTICULAR
SCREEN
491P010O80
BACK
SIDE
FRONT
SIDE



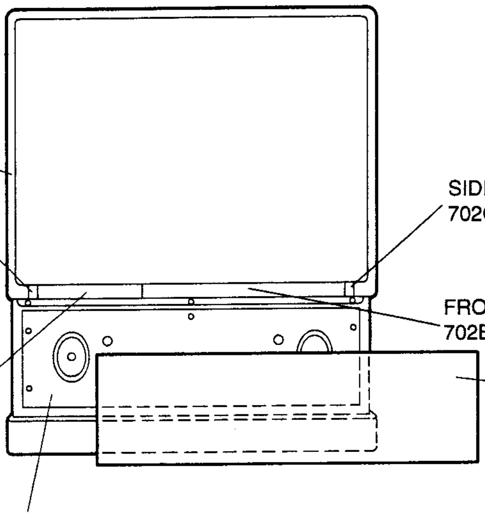
DOOR CATCH
761C273O10
PUSH KNOB
734D417O20
CONTROL DOOR ASSY
702B737O10

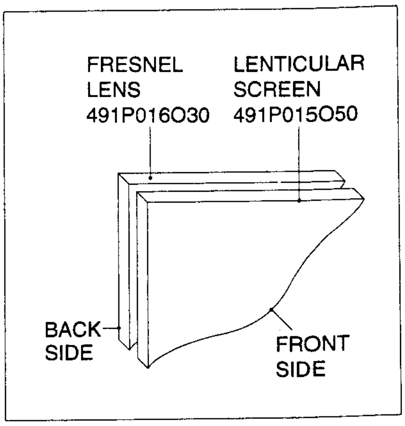


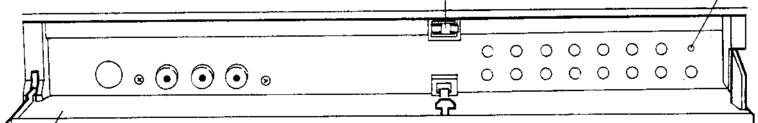
BACK COVER-U
ASSY
700C146O90(VS-50VA1)
700C146O50(VS-50VA2)
700C148O80(VS-50VA2CA)
TRAY ASSY
702C948O60
(VS-50VA1
VS-50VA2)
702C949O30
(VS-50VA2CA)
BACK COVER-D
ASSY
700C147O10(VS-50VA1)
700A590O70(VS-50VA2)
700C147O90(VS-50VA2CA)
TERMINAL BOARD
702A355O10
AC POWER CORD
246C160O10

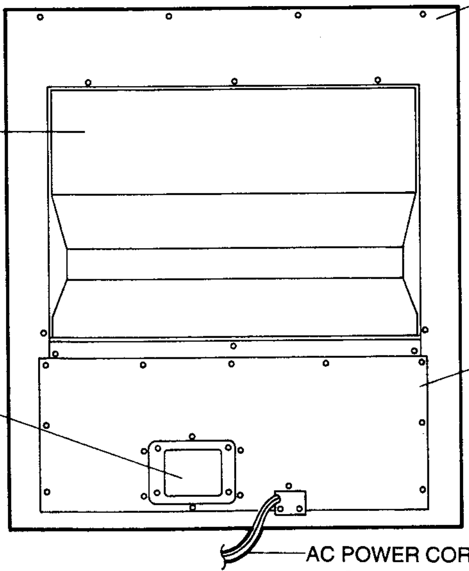
CABINET AND SCREEN PARTS

[60"]


FRAME SCREEN ASSY
975B071010
SIDE PANEL
702C991010
SIDE PANEL
702C991020
FRONT PANEL
702B825090
FRONT UNIT
702B826010
SPEAKER GRILLE
740B159010
BAFFLE BOARD ASSY
975C125011


FRESNEL LENS
491P016030
LENTICULAR SCREEN
491P015050
BACK SIDE
FRONT SIDE


DOOR CATCH
761C437010
PUSH KNOB
734D417020
CONTROL DOOR ASSY
702C837000


CABINET ASSY
975D045050(VS-60VA2)
975D045070(VS-60VA2CA)
BACK COVER ASSY
700C147020
BACK BOARD ASSY
762B289010(VS-60VA2)
700C134090(VS-60VA2CA)
TERMINAL BOARD
702A355010
AC POWER CORD
246C160010

PARTS LIST

MODEL : VS – 45VA1／VS – 50VA1

In order to expedite delivery of replacement part orders.
Specify : 1. Model number／Serial number
2. Part number and Description
3. Quantity
Unless full information is supplied, delay in execution of orders will result.
＊ : Warranty return items
▨ : Critical components

MARK	B	C	D	F	G	J	K
TOLERANCE (%)	± 0.1	± 0.25	± 0.5	± 1	± 2	± 5	± 10

MARK	M	N	V	X	Z	P	Q
TOLERANCE (%)	± 20	± 30	+ 10 – 10	+ 40 – 20	+ 80 – 20	+ 100 – 0	+ 30 – 10

MARK	B	C	D	F	G
TOLERANCE (pF)	± 0.1	± 0.25	± 0.5	± 1	± 2

ABBREVIATION

[45] : VS – 45VA1
[50] : VS – 50VA1

[45] : VS – 45VA1 [50] : VS – 50VA1

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
		TUBES	
	251C037040	CRT ASSY	RED-MONOCHROME [45]
	251C037050	CRT ASSY	GREEN-MONOCHROME [45]
	251C037060	CRT ASSY	BLUE-MONOCHROME [45]
	251C039040	CRT ASSY	RED-MONOCHROME [50]
	251C039050	CRT ASSY	GREEN-MONOCHROME [50]
	251C039060	CRT ASSY	BLUE-MONOCHROME [50]
		INTEGRATED CIRCUITS	
IC101	272P026010	IC	M51366SP
IC201	272P467010	IC	M52023SP
IC202	272P181010	IC	CX20125
IC203	266P064010	IC	M51320P
IC204	272P302010	IC	PA0030
IC205	272P865010	IC	HA11561
IC206	272P631010	IC	AN91A14K
IC209	266P686010	IC	MSM5258RS
IC2001	267P076010	IC	SI-3120C
IC2002	267P076020	IC	SI-3090C
IC2003	267P076030	IC	SI-3050C
IC2004	263P560010	IC	M62359P
IC300	272P440010	IC	LA4282
IC3001	272P351020	IC	μPC1871CU
IC3301	266P419030	IC	M5223L
IC3302	272P139020	IC	LA7953-N
IC3303	266P172010	IC	M5218L
IC3304	272P373020	IC	5222P
IC3305	266P172010	IC	M5218L
IC3306	266P419030	IC	M5223L
IC3307	272P184010	IC	LA7222
IC3308	272P184010	IC	LA7222 [50]
IC401	272P239050	IC	LA7838-S
IC4A00	263P306010	IC	TC74HC123AP
IC4A01	272P263010	IC	CXA 1268-P
IC4A02	272P106020	IC	μPC4574C
IC4A03	263P053020	IC	TC4053BP
IC4B04	272P106010	IC	μPC-4570C
IC500	266P154010	IC	μPC393C
IC5A0	272P132010	IC	AN 5551
IC5A1	272P106030	IC	μPC4570HA
IC5000	272P240010	IC	M5237L
IC701	274P200010	IC	M37204M8-561SP
IC702	263P170030	IC	CAT35C102HP
IC703	272P758010	IC	M62358P
IC704	274P008020	IC	MN1380-L
IC706	267P076030	IC	SI-3050C
IC7000	272P860010	IC	HA11574
IC7100	274P177010	IC	HD49416FS
IC7101	263P548010	IC	M5M4C264L-12
IC7601	272P184010	IC	LA7222
IC7602	272P394010	IC	LA7956
IC7603	272P394010	IC	LA7956
IC7604	272P164010	IC	LA7220
IC7605	266P064010	IC	M51320P
IC7606	263P546010	IC	M66320P
IC800	272P690010	IC	PA0036
IC801	272P106020	IC	μPC4574C
IC802	272P106020	IC	μPC4574C
IC803	263P053020	IC	TC4053BP
IC804	272P106020	IC	μPC4574C
IC805	272P106020	IC	μPC4574C
IC806	272P106020	IC	μPC4574C
IC807	272P106030	IC	μPC4570HA
IC808	272P106030	IC	μPC4570HA
IC809	266P727010	IC	μPC339C/MC3302P
IC811	266P934020	IC	μPC7812H
IC812	266P919010	IC	μPC7912H
IC8A0	267P077020	IC	STK391-020
IC8A1	267P077020	IC	STK391-020
IC8501	263P306010	IC	TC74HC123AP
IC8551	267P108010	IC	STK396-010
IC8801	267P825020	IC	STK4275MB
IC9A0	267P112010	IC	STR-M6511
IC9A1	267P062010	IC	SE130N
		TRANSISTORS	
Q 101	260P356010	TRANSISTOR	2SC1906
Q 102	260P559030	TRANSISTOR	2SC1740S-S
Q 103	260P560040	TRANSISTOR	2SA933S-S
Q 104	260P559030	TRANSISTOR	2SC1740S-S
Q 105	260P356010	TRANSISTOR	2SC1906
Q 201	260P559030	TRANSISTOR	2SC1740S-S
Q 221	260P559030	TRANSISTOR	2SC1740S-S
Q 222	260P559030	TRANSISTOR	2SC1740S-S
Q 223	260P559030	TRANSISTOR	2SC1740S-S
Q 224	260P559030	TRANSISTOR	2SC1740S-S
Q 240	260P559030	TRANSISTOR	2SC1740S-S
Q 263	260P559030	TRANSISTOR	2SC1740S-S
Q 264	260P560040	TRANSISTOR	2SA933S-S
Q 280	260P559030	TRANSISTOR	2SC1740S-S
Q 2B0	260P559030	TRANSISTOR	2SC1740S-S
Q 2B1	260P559030	TRANSISTOR	2SC1740S-S
Q 2B2	260P559030	TRANSISTOR	2SC1740S-S
Q 2D0	260P559030	TRANSISTOR	2SC1740S-S
Q 2H0	260P559030	TRANSISTOR	2SC1740S-S
Q 2H1	260P560040	TRANSISTOR	2SA933S-S
Q 2K1	260P560040	TRANSISTOR	2SA933S-S
Q 2K2	260P559030	TRANSISTOR	2SC1740S-S
Q 2K3	260P559030	TRANSISTOR	2SC1740S-S
Q 2K4	260P559030	TRANSISTOR	2SC1740S-S
Q 2K5	260P559030	TRANSISTOR	2SC1740S-S
Q 2K6	260P559030	TRANSISTOR	2SC1740S-S
Q 2L1	260P560040	TRANSISTOR	2SA933S-S
Q 2L2	260P560040	TRANSISTOR	2SA933S-S
Q 2L3	260P560040	TRANSISTOR	2SA933S-S
Q 2M0	260P559030	TRANSISTOR	2SC1740S-S
Q 2M1	260P559030	TRANSISTOR	2SC1740S-S
Q 2N0	260P559030	TRANSISTOR	2SC1740S-S
Q 2N1	260P559030	TRANSISTOR	2SC1740S-S

[45] : VS – 45VA1 [50] : VS – 50VA1

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
Q 2P1	260P559030	TRANSISTOR	2SC1740S-S
Q 2P2	260P559030	TRANSISTOR	2SC1740S-S
Q 2001	260P559030	TRANSISTOR	2SC1740S-S
Q 2004	260P559030	TRANSISTOR	2SC1740S-S
Q 2005	260P560040	TRANSISTOR	2SA933S-S
Q 2007	260P559030	TRANSISTOR	2SC1740S-S
Q 2008	260P559030	TRANSISTOR	2SC1740S-S
Q 303	260P559030	TRANSISTOR	2SC1740S-S
Q 311	260P560040	TRANSISTOR	2SA933S-S
Q 312	260P559030	TRANSISTOR	2SC1740S-S
Q 313	260P559030	TRANSISTOR	2SC1740S-S
Q 318	260P559030	TRANSISTOR	2SC1740S-S
Q 3A1	260P356010	TRANSISTOR	2SC1906
Q 3301	260P559030	TRANSISTOR	2SC1740S-S
Q 3302	260P559030	TRANSISTOR	2SC1740S-S
Q 3303	260P559030	TRANSISTOR	2SC1740S-S
Q 3304	260P559030	TRANSISTOR	2SC1740S-S
Q 3305	260P559030	TRANSISTOR	2SC1740S-S
Q 4A00	260P559030	TRANSISTOR	2SC1740S-S
Q 4A01	260P559030	TRANSISTOR	2SC1740S-S
Q 4B02	260P574030	TRANSISTOR	2SD1264A-P
Q 4B03	260P574030	TRANSISTOR	2SD1264A-P
Q 4B04	260P573020	TRANSISTOR	2SB940A-P
Q 500	260P422010	TRANSISTOR	2SC2482
Q 501	260P572010	TRANSISTOR	2SD1556
Q 502	260P559050	TRANSISTOR	2SC1740S-E
Q 503	260P559050	TRANSISTOR	2SC1740S-E
Q 504	260P559030	TRANSISTOR	2SC1740S-S
Q 506	260P559030	TRANSISTOR	2SC1740S-S
Q 5A0	260P420020	TRANSISTOR	2SC2073-B, C
Q 5000	260P559030	TRANSISTOR	2SC1740S-S
Q 5001	260P167040	TRANSISTOR	2SA673A-D
Q 6A1	260P385020	TRANSISTOR	2SC2229-Y
Q 6A2	260P385020	TRANSISTOR	2SC2229-Y
Q 6A3	260P385020	TRANSISTOR	2SC2229-Y
Q 6A4	260P571010	TRANSISTOR	2SC3789-D, E
Q 6A5	260P571010	TRANSISTOR	2SC3789-D, E
Q 6A6	260P571010	TRANSISTOR	2SC3789-D, E
Q 701	260P559030	TRANSISTOR	2SC1740S-S
Q 705	260P559030	TRANSISTOR	2SC1740S-S
Q 707	260P559030	TRANSISTOR	2SC1740S-S
Q 711	260P559030	TRANSISTOR	2SC1740S-S
Q 715	260P559030	TRANSISTOR	2SC1740S-S
Q 716	260P560040	TRANSISTOR	2SA933S-S
Q 717	260P559030	TRANSISTOR	2SC1740S-S
Q 7001	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7002	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7003	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7004	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7005	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7006	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7007	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7040	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7041	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7042	260P817020	CHIP TRANSISTOR	2SA1037K-R

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
Q 7043	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7050	260P818020	CHIP TRANSISTOR	2SC2412K-R
Q 7051	260P818020	CHIP TRANSISTOR	2SC2412K-R
Q 7052	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7053	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7054	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7055	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7056	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7057	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7058	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7602	260P559030	TRANSISTOR	2SC1740S-S
Q 7603	260P559030	TRANSISTOR	2SC1740S-S
Q 7800	260P559030	TRANSISTOR	2SC1740S-S
Q 808	260P305010	TRANSISTOR	2SC2901
Q 809	260P459020	TRANSISTOR	2SK381-B
Q 810	260P459020	TRANSISTOR	2SK381-B
Q 811	260P459020	TRANSISTOR	2SK381-B
Q 812	260P459020	TRANSISTOR	2SK381-B
Q 830	260P693010	TRANSISTOR	2SC3064-F
Q 838	260P690010	TRANSISTOR	2SA1237-F
Q 8501	260P559030	TRANSISTOR	2SC1740S-S
Q 8521	260P559030	TRANSISTOR	2SC1740S-S
Q 8522	260P559030	TRANSISTOR	2SC1740S-S
Q 8523	260P559030	TRANSISTOR	2SC1740S-S
Q 8800	260P559030	TRANSISTOR	2SC1740S-S
Q 950	260P559050	TRANSISTOR	2SC1740S-E
Q 951	260P559050	TRANSISTOR	2SC1740S-E
Q 9A0	260P325030	TRANSISTOR	2SC2655-Y
Q 9A40	260P587020	TRANSISTOR	2SC 2333-M
Q 9A41	260P422010	TRANSISTOR	2SC2482
Q 9A42	260P422010	TRANSISTOR	2SC2482
Q 9A43	260P422010	TRANSISTOR	2SC2482
		DIODES	
D 101	264P502010	DIODE	HZ5ALL
D 102	264P470040	DIODE	EQA02-30C/RD33EB1
D 201	264P045040	DIODE	1S2471
D 202	264P045040	DIODE	1S2471
D 203	264P045040	DIODE	1S2471
D 204	264P045040	DIODE	1S2471
D 205	264P045040	DIODE	1S2471
D 206	264P045040	DIODE	1S2471
D 208	264P045040	DIODE	1S2471
D 209	264P045040	DIODE	1S2471
D 210	264P045040	DIODE	1S2471
D 212	264P045040	DIODE	1S2471
D 213	264P045040	DIODE	1S2471
D 216	264P045040	DIODE	1S2471
D 220	264P484070	DIODE	RD6. 2FB2
D 222	264P045040	DIODE	1S2471
D 223	264P045040	DIODE	1S2471
D 224	264P045040	DIODE	1S2471
D 225	264P045040	DIODE	1S2471
D 226	264P045040	DIODE	1S2471
D 228	264P483080	DIODE	RD5. 1FB2

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
D 229	264P045040	DIODE	1S2471
D 231	264P045040	DIODE	1S2471
D 232	264P464040	DIODE	EQA02-10B
D 2001	264P045040	DIODE	1S2471
D 2002	264P285010	DIODE	S5500D
D 2003	264P045040	DIODE	1S2471
D 301	264P285010	DIODE	S5500D
D 302	264P045040	DIODE	1S2471
D 303	264P045040	DIODE	1S2471
D 304	264P502020	DIODE	HZ5BLL
D 305	264P501040	DIODE	HZ3ALL
D 307	264P285010	DIODE	S5500D
D 309	264P045040	DIODE	1S2471
D 3301	264P045040	DIODE	1S2471
D 3302	264P501050	DIODE	HZ3BLL
D 400	264P464050	DIODE	EQA02-10C
D 401	264P285010	DIODE	S5500D
D 4A00	264P045040	DIODE	1S2471
D 4B01	264P045040	DIODE	1S2471
D 4B02	264P483080	DIODE	RD5.1FB2
D 4B03	264P483080	DIODE	RD5.1FB2
D 4B04	264P045040	DIODE	1S2471
D 500	264P533010	DIODE	RS 4FS
D 501	264P358070	DIODE	RU 4AM
D 502	264P146010	DIODE	RC 2
D 503	264P045040	DIODE	1S2471
D 504	264P045040	DIODE	1S2471
D 505	264P102020	DIODE	RU 3B
D 506	264P045040	DIODE	1S2471
D 507	264P244030	DIODE	HZT22-02
D 508	264P045040	DIODE	1S2471
D 509	264P457050	DIODE	RD3.0EB1
D 510	264P045040	DIODE	1S2471
D 511	264P045040	DIODE	1S2471
D 512	264P101050	DIODE	RM 1B
D 515	264P045040	DIODE	1S2471
D 518	264P489010	DIODE	RD16FB1
D 5A1	264P045040	DIODE	1S2471
D 5000	264P285010	DIODE	S5500D
D 6A5	264P501020	DIODE	HZ2BLL
D 6A6	264P045040	DIODE	1S2471
D 6A7	264P045040	DIODE	1S2471
D 701	264P045040	DIODE	1S2471
D 704	264P045040	DIODE	1S2471
D 705	264P045040	DIODE	1S2471
D 706	264P486020	DIODE	RD8.2FB3
D 711	264P045040	DIODE	1S2471
D 712	264P045040	DIODE	1S2471
D 713	264P045040	DIODE	1S2471
D 714	264P502020	DIODE	HZ5BLL
D 715	264P502020	DIODE	HZ5BLL
D 7001	264P821010	CHIP DIODE	HSM2836
D 7601	264P463040	DIODE	EQA02-09AB/RD9.1EB1
D 7602	264P463040	DIODE	EQA02-09AB/RD9.1EB1
D 7603	264P463040	DIODE	EQA02-09AB/RD9.1EB1

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
D 78B0	264P189010	LIGHT EMITTING DIODE	TLR124
D 803	264P045040	DIODE	1S2471
D 804	264P045040	DIODE	1S2471
D 810	264P045040	DIODE	1S2471
D 811	264P045040	DIODE	1S2471
D 820	264P045040	DIODE	1S2471
D 821	264P045040	DIODE	1S2471
D 826	264P483080	DIODE	RD5.1FB2
D 827	264P483080	DIODE	RD5.1FB2
D 830	264P045040	DIODE	1S2471
D 831	264P045040	DIODE	1S2471
D 832	264P045040	DIODE	1S2471
D 833	264P045040	DIODE	1S2471
D 834	264P045040	DIODE	1S2471
D 835	264P045040	DIODE	1S2471
D 836	264P045040	DIODE	1S2471
D 837	264P045040	DIODE	1S2471
D 8A0	264P045040	DIODE	1S2471
D 8A1	264P045040	DIODE	1S2471
D 8B0	264P045040	DIODE	1S2471
D 8B1	264P045040	DIODE	1S2471
D 8501	264P045040	DIODE	1S2471
D 8502	264P045040	DIODE	1S2471
D 900	264P535010	DIODE	RBV-608
D 920	264P512020	DIODE	RBV-40C
D 921	264P512020	DIODE	RBV-40C
D 951	264P487080	DIODE	RD12FB2
D 952	264P487080	DIODE	RD12FB2
D 953	264P045040	DIODE	1S2471
D 954	264P045040	DIODE	1S2471
D 960	264P358090	DIODE	RU 4YX
D 962	264P102020	DIODE	RU 3B
D 963	264P102020	DIODE	RU 3B
D 964	264P102020	DIODE	RU 3B
D 9A01	264P578010	DIODE	RG 2A
D 9A02	264P588010	DIODE	FML-G16S
D 9A03	264P358090	DIODE	RU 4YX
D 9A04	264P102040	DIODE	RU 3M
D 9A05	264P102040	DIODE	RU 3M
D 9A06	264P358090	DIODE	RU 4YX
D 9A10	264P521040	DIODE	EU 1A
D 9A11	264P622010	DIODE	AL01Z
D 9A13	264P622010	DIODE	AL01Z
D 9A42	264P102020	DIODE	RU 3B
		FILTERS	
CF101	296P024020	CERAMIC TRAP	TPS4.5MB7
CF201	299P051050	CERAMIC RESONATOR	CSB500F9
CF301	296P067010	CERAMIC FILTER	SFS4.5MB2
DL205	296P113010	COMB FILTER	
LC7101	409P771010	LOW PASS FILTER	A285TCIS-13505
SF101	296P096020	SAW FILTER	SAF45MVK56Z
SF301	296P092010	SAW FILTER	SAF41MC70Z
X 701	296P064010	CERAMIC RESONATOR	CSA-4.00MG

[45] : VS – 45VA1 [50] : VS – 50VA1

DELAY LINES

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
DL200	337P147020	DELAY LINE		
DL201	337P147010	DELAY LINE		
DL202	337P113020	DELAY LINE	100NS	
DL203	337P134010	DELAY LINE	SDL-4256	

COILS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
	330P164010	DEFLECTION YOKE COIL	RED/BLUE-CRT	
	330P164020	DEFLECTION YOKE COIL	GREEN-CRT	
L 101	325C124030	PEAKING COIL	0.22 μ H-M	
L 102	325C124090	PEAKING COIL	0.68 μ H-M	
L 103	325C120010	PEAKING COIL	1.0 μ H-M	
L 104	325C121030	PEAKING COIL	10 μ H-K	
L 105	325C122030	PEAKING COIL	68 μ H-K	
L 106	323P171010	VIF COIL	45.75MHz	
L 107	323P111020	VIF COIL	45MHz	
L 108	325C122030	PEAKING COIL	68 μ H-K	
L 109	325C120020	PEAKING COIL	1.2 μ H-M	
L 111	325C121030	PEAKING COIL	10 μ H-K	
L 117	325C121030	PEAKING COIL	10 μ H-K	
L 201	325C121030	PEAKING COIL	10 μ H-K	
L 202	325C101030	PEAKING COIL	10 μ H-K	
L 203	325C121090	PEAKING COIL	33 μ H-K	
L 204	325C121030	PEAKING COIL	10 μ H-K	
L 205	325C121030	PEAKING COIL	10 μ H-K	
L 207	325C121000	PEAKING COIL	5.6 μ H-K	
L 212	325C121030	PEAKING COIL	10 μ H-K	
L 213	325C161000	PEAKING COIL	5.6 μ H-K	
L 220	325C122040	PEAKING COIL	82 μ H-K	
L 2N0	325C162090	PEAKING COIL	220 μ H-K	
L 2N1	325C162090	PEAKING COIL	220 μ H-K	
L 2002	325C121030	PEAKING COIL	10 μ H-K	
L 2003	325C121030	PEAKING COIL	10 μ H-K	
L 2004	325C163070	PEAKING COIL	1000 μ H-K	
L 2006	325C121030	PEAKING COIL	10 μ H-K	
L 2007	325C121030	PEAKING COIL	10 μ H-K	
L 2009	321C031040	RF COIL	10 μ H-K	
L 303	327P072010	SIF COIL	TKACS-27071BY	
L 3A1	325C122030	PEAKING COIL	68 μ H-K	
L 3301	325C121030	PEAKING COIL	10 μ H-K	[50]
L 3A01	325C121030	PEAKING COIL	10 μ H-K	
L 4A1	321C031090	RF COIL	33 μ H-K	
L 4A2	321C031090	RF COIL	33 μ H-K	
L 4B10	351P068010	PEAKING COIL	SB4-680-122	
L 500	321C030070	RF COIL	3.3 μ H-K	
L 501	411P001010	FERRITE LEAD		
L 502	411P001010	FERRITE LEAD		
L 503	333P025040	H-LIN.COIL		
L 505	409P565020	FILTER COIL		
L 506	409P691010	FILTER COIL		
L 6A0	325C107020	PEAKING COIL	56 μ H-J	
L 6A1	325C107020	PEAKING COIL	56 μ H-J	
L 6A2	325C107020	PEAKING COIL	56 μ H-J	
L 6A3	325C161060	PEAKING COIL	18 μ H-K	

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
L 6A4	325C161060	PEAKING COIL	18 μ H-K	
L 6A5	325C161060	PEAKING COIL	18 μ H-K	
L 701	325C121030	PEAKING COIL	10 μ H-K	
L 702	325C121030	PEAKING COIL	10 μ H-K	
L 703	325C121060	PEAKING COIL	18 μ H-K	
L 704	325C121030	PEAKING COIL	10 μ H-K	
L 707	325C121030	PEAKING COIL	10 μ H-K	
L 708	321C010040	RF COIL	1000 μ H-J	
L 710	325C121030	PEAKING COIL	10 μ H-K	
L 711	325C121030	PEAKING COIL	10 μ H-K	
L 712	325C121030	PEAKING COIL	10 μ H-K	
L 7000	321C031040	RF COIL	10 μ H-K	
L 7001	325C107050	PEAKING COIL	100 μ H-J	
L 7002	325C141030	CHIP COIL	10 μ H-K	
L 7003	325C141030	CHIP COIL	10 μ H-K	
L 7004	325C141030	CHIP COIL	10 μ H-K	[45]
L 7005	321C031040	RF COIL	10 μ H-K	[45]
L 7101	325C141030	CHIP COIL	10 μ H-K	[45]
L 7102	325C141030	CHIP COIL	10 μ H-K	
L 7103	325C141030	CHIP COIL	10 μ H-K	
L 7601	325C121030	PEAKING COIL	10 μ H-K	
L 7602	325C121030	PEAKING COIL	10 μ H-K	
L 7603	325C121030	PEAKING COIL	10 μ H-K	
L 77A1	325C121030	PEAKING COIL	10 μ H-K	
L 7800	325C121030	PEAKING COIL	10 μ H-K	
L 801	321C031040	RF COIL	10 μ H-K	
L 805	321C031040	RF COIL	10 μ H-K	
L 807	351P068030	PEAKING COIL	SBC-03	
L 808	351P068030	PEAKING COIL	SBC-03	
L 809	351P068030	PEAKING COIL	SBC-03	
L 810	351P068030	PEAKING COIL	SBC-03	
L 811	321C031040	RF COIL	10 μ H-K	
L 812	321C031040	RF COIL	10 μ H-K	
L 814	321C031090	RF COIL	33 μ H-K	
L 815	321C031090	RF COIL	33 μ H-K	
L 900	351P064030	LINE FILTER	SE26TL-40030A	
L 9A01	411D009020	FERRITE CORE FILTER		
L 9A02	411P001010	FERRITE LEAD		
L 9A03	351P070010	FILTER COIL	560 μ H-K	
L 9A10	411P001010	FERRITE LEAD		
L 9A12	411P001010	FERRITE LEAD		
LC7102	409P736010	COIL	CLOCK-ADJ 11614	
LF7000	409P696020	EMI FILTER	BLM41A01	
LF7001	409P402030	EMI FILTER	DSS306-55FZ103N100	
LF7002	409P402020	EMI FILTER	DSS306-55B102M100	
LF7003	409P402020	EMI FILTER	DSS306-55B102M100	
T 101	320P026030	TRAP COIL		

TRANSFORMERS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
	350P581010	POWER		
T 201	349P159020	CHROMA-BP		
T 4B00	349P192010	PCC	TOP-BOTTOM	
T 500	336P009030	H.DRIVE		
T 501	334P191010	FLYBACK		
T 5000	349P122080	PCC		

[45] : VS – 45VA1 [50] : VS – 50VA1

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
T 9A0	350P580010	POWER		
		VARIABLE RESISTORS		
VR102	127C080040	VR-SEMIFIXED	1/5W B1KΩ-M	
VR1A1	127C080060	VR-SEMIFIXED	1/5W B3KΩ-M	
VR204	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M	
VR205	127C080040	VR-SEMIFIXED	1/5W B1KΩ-M	
VR3001	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M	
VR3002	127C080090	VR-SEMIFIXED	1/5W B20KΩ-M	
VR3003	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M	
VR3004	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M	
VR3005	127C081010	VR-SEMIFIXED	1/5W B50KΩ-M	
VR400	127C090080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR401	127C090090	VR-SEMIFIXED	1/5W B20KΩ-M	
VR4A00	127C190080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR4A01	127C190080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR4A02	127C190080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR5A0	127C280030	VR-SEMIFIXED	1/10W B500Ω-N	
VR5A2	127C280060	VR-SEMIFIXED	1/10W B3KΩ-N	
VR5A3	127C280060	VR-SEMIFIXED	1/10W B3KΩ-N	
VR5000	127C280040	VR-SEMIFIXED	1/10W B1KΩ-N	
VR6A0	127C080010	VR-SEMIFIXED	1/5W B200Ω-M	
VR6A1	127C080010	VR-SEMIFIXED	1/5W B200Ω-M	
VR6A2	127C091040	VR-SEMIFIXED	1/5W B300KΩ-M	
VR6A3	127C091040	VR-SEMIFIXED	1/5W B300KΩ-M	
VR6A4	127C091040	VR-SEMIFIXED	1/5W B300KΩ-M	
VR6A5	129D074010	VR-SEMIFIXED	0. 6W-B4M-8S-M	
VR6A6	129D074010	VR-SEMIFIXED	0. 6W-B4M-8S-M	
VR6A7	129D074010	VR-SEMIFIXED	0. 6W-B4M-8S-M	
VR7001	127C090030	VR-SEMIFIXED	1/5W B500Ω-M	
VR7002	127C090030	VR-SEMIFIXED	1/5W B500Ω-M	
VR8A0	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M	
VR8A1	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M	
VR8A2	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M	
VR8A3	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M	
VR8A4	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M	
VR8A5	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M	
VR8A6	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M	
VR8A7	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M	
VR8A8	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M	
VR8A9	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M	
VR8B0	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M	
VR8B1	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M	
VR8B2	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M	
VR8B3	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M	
VR8B4	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M	
VR8B5	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M	
VR8B6	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR8B7	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR8B8	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR8B9	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR8C0	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR8C1	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR8C2	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR8C3	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR8C4	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR8C5	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR8C6	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR8C7	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR8C8	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR8C9	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR8D0	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR8D1	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR8E0	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M	
VR8E1	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M	
VR8E2	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M	
VR8E3	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M	
VR8501	127C090080	VR-SEMIFIXED	1/5W B10KΩ-M	
VR8800	120C330090	VR-PCB	1/20W B5KΩ-20N	
VR8801	120C330090	VR-PCB	1/20W B5KΩ-20N	
VR8802	120C330090	VR-PCB	1/20W B5KΩ-20N	
		RESISTORS		
R 2F1	103P532070	NETWORK	1/8W 1. 5KΩ-JX3	
R 2Z9	103P553010	NETWORK	1/8W 3. 3KΩ-JX5	
R 311	103P378040	FUSE	1/4W 2. 2Ω-J	
R 312	103P378040	FUSE	1/4W 2. 2Ω-J	
R 4B52	103P397090	FUSE	1/2W 0. 82Ω-J	
R 4B53	103P397090	FUSE	1/2W 0. 82Ω-J	
R 503	109D074030	CEMENT METAL	5W 3. 9KΩ-K/J	
R 508	103P438050	FUSE METAL	2W 2. 7Ω-K/J	
R 509	103P391030	FUSE	1/2W 100Ω-J	
R 510	103P398010	FUSE	1/2W 1. 2Ω-J	
R 5008	103P398000	FUSE	1/2W 1. 0Ω-J	
R 754	103P603070	NETWORK	1/8W 10KΩ-JX10	
R 7C0	103P532050	NETWORK	1/8W 1KΩ-JX3	
R 7001	103P402090	CHIP RESISTOR	1/10W 2. 2KΩ-J	
R 7002	103P401050	CHIP RESISTOR	1/10W 150Ω-J	
R 7003	103P402090	CHIP RESISTOR	1/10W 2. 2KΩ-J	
R 7004	103P401050	CHIP RESISTOR	1/10W 150Ω-J	
R 7007	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7008	103P473060	CHIP RESISTOR	1/10W 3KΩ-F	
R 7009	103P402090	CHIP RESISTOR	1/10W 2. 2KΩ-J	
R 7010	103P402060	CHIP RESISTOR	1/10W 1. 2KΩ-J	
R 7011	103P402070	CHIP RESISTOR	1/10W 1. 5KΩ-J	
R 7012	103P403020	CHIP RESISTOR	1/10W 3. 9KΩ-J	
R 7013	103P402090	CHIP RESISTOR	1/10W 2. 2KΩ-J	
R 7014	103P402060	CHIP RESISTOR	1/10W 1. 2KΩ-J	
R 7015	103P402070	CHIP RESISTOR	1/10W 1. 5KΩ-J	
R 7016	103P473000	CHIP RESISTOR	1/10W 1. 6KΩ-F	
R 7019	103P403050	CHIP RESISTOR	1/10W 6. 8KΩ-J	
R 7020	103P403090	CHIP RESISTOR	1/10W 15KΩ-J	
R 7021	103P403090	CHIP RESISTOR	1/10W 15KΩ-J	
R 7022	103P403050	CHIP RESISTOR	1/10W 6. 8KΩ-J	
R 7023	103P402090	CHIP RESISTOR	1/10W 2. 2KΩ-J	
R 7024	103P401050	CHIP RESISTOR	1/10W 150Ω-J	[45]
R 7024	103P402020	CHIP RESISTOR	1/10W 560Ω-J	[50]
R 7025	103P404020	CHIP RESISTOR	1/10W 27KΩ-J	
R 7026	103P404020	CHIP RESISTOR	1/10W 27KΩ-J	
R 7027	103P401050	CHIP RESISTOR	1/10W 150Ω-J	

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
R 7028	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J	
R 7029	103P405070	CHIP RESISTOR	1/10W 470KΩ-J	
R 7031	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7032	103P409050	CHIP RESISTOR	1/10W 0Ω	[45]
R 7033	103P409050	CHIP RESISTOR	1/10W 0Ω	[45]
R 7034	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7041	103P473090	CHIP RESISTOR	1/10W 3.9KΩ-F	
R 7042	103P473090	CHIP RESISTOR	1/10W 3.9KΩ-F	
R 7043	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7044	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7045	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7046	103P474090	CHIP RESISTOR	1/10W 10KΩ-F	
R 7047	103P473030	CHIP RESISTOR	1/10W 2.2KΩ-F	
R 7048	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7049	103P403030	CHIP RESISTOR	1/10W 4.7KΩ-J	
R 7050	103P402020	CHIP RESISTOR	1/10W 560Ω-J	[50]
R 7060	103P475040	CHIP RESISTOR	1/10W 16KΩ-F	
R 7061	103P475040	CHIP RESISTOR	1/10W 16KΩ-F	
R 7062	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7063	103P475090	CHIP RESISTOR	1/10W 27KΩ-F	
R 7064	103P475040	CHIP RESISTOR	1/10W 16KΩ-F	
R 7065	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7066	103P475040	CHIP RESISTOR	1/10W 16KΩ-F	
R 7067	103P475040	CHIP RESISTOR	1/10W 16KΩ-F	
R 7068	103P471060	CHIP RESISTOR	1/10W 430Ω-F	
R 7070	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7071	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7072	103P402010	CHIP RESISTOR	1/10W 470Ω-J	
R 7073	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7074	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7075	103P402010	CHIP RESISTOR	1/10W 470Ω-J	
R 7080	103P472060	CHIP RESISTOR	1/10W 1.1KΩ-F	
R 7081	103P401030	CHIP RESISTOR	1/10W 100Ω-J	
R 7082	103P474030	CHIP RESISTOR	1/10W 5.6KΩ-F	
R 7083	103P472000	CHIP RESISTOR	1/10W 620Ω-F	
R 7084	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7085	103P476010	CHIP RESISTOR	1/10W 33KΩ-F	
R 7086	103P476060	CHIP METAL	1/10W 51KΩ-F	
R 7087	103P401070	CHIP RESISTOR	1/10W 220Ω-J	
R 7088	103P401070	CHIP RESISTOR	1/10W 220Ω-J	
R 7100	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7101	103P406010	CHIP RESISTOR	1/10W 1MΩ-J	[45]
R 7102	103P403070	CHIP RESISTOR	1/10W 10KΩ-J	
R 7103	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J	
R 7104	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J	
R 7105	103P403050	CHIP RESISTOR	1/10W 6.8KΩ-J	
R 7106	103P403020	CHIP RESISTOR	1/10W 3.9KΩ-J	
R 7107	103P402020	CHIP RESISTOR	1/10W 560Ω-J	
R 7108	103P403020	CHIP RESISTOR	1/10W 3.9KΩ-J	
R 7109	103P402020	CHIP RESISTOR	1/10W 560Ω-J	
R 7111	103P406010	CHIP RESISTOR	1/10W 1MΩ-J	
R 7112	103P406010	CHIP RESISTOR	1/10W 1MΩ-J	
R 7123	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7124	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7125	103P409050	CHIP RESISTOR	1/10W 0Ω	

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
R 7126	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7127	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7128	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7129	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7130	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7131	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7150	103P479000	CHIP METAL	1/10W 510KΩ-F	
R 901	109D071020	CEMENT WIRE	15W 2.2Ω-K	
R 9A15	102P106080	WIRE	2W 0.1Ω-J	
R 9A16	102P106080	WIRE	2W 0.1Ω-J	
		CAPACITORS AND TRIMMERS		
C 408	189P071050	C-M-PLASTIC-PP	200V 0.33μF-J	
C 4B30	189P071090	C-M-PLASTIC-PP	200V 0.27μF-J	
C 510	189P071010	C-M-PLASTIC-PP	200V 0.56μF-J	
C 511	189P071070	C-M-PLASTIC-PP	200V 0.39μF-J	
C 512	189P071080	C-M-PLASTIC-PP	200V 0.47μF-J	
C 513	189P071010	C-M-PLASTIC-PP	200V 0.56μF-J	
C 515	189P072020	C-M-POLYESTER	1600V 0.1μF-K	
C 520	189P071040	C-M-PLASTIC-PP	200V 0.12μF-J	
C 532	189P071050	C-M-PLASTIC-PP	200V 0.33μF-J	
C 716	149D811030	CR-MULTIPLE	50V 10000PFX4	
C 731	202P109040	TRIMMER CAPACITOR	7.3pF-45pF	
C 7001	181P504090	CHIP CAPACITOR	35V 4.7μF-M	
C 7002	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7003	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7004	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7006	141P133090	CHIP CAPACITOR	F50V0.022μF-Z	
C 7007	181P522030	CHIP ELECTROLYTIC-C	16V 10μF-M	
C 7008	154P323000	CHIP CAPACITOR	SL50V 56pF-J	[45]
C 7009	154P324000	CHIP CAPACITOR	SL50V 150pF-J	
C 7010	141P137060	CHIP CAPACITOR	B50V 0.033μF-K	
C 7011	181P506020	CHIP CAPACITOR	50V 2.2μF-M	
C 7012	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7014	181P522060	CHIP ELECTROLYTIC-C	16V 47μF-M	
C 7015	181P506010	CHIP CAPACITOR	04W 50V 1μF-M	[45]
C 7015	181P500010	CHIP CAPACITOR	6.3V 22μF-M	[50]
C 7016	181P526010	CHIP CAPACITOR	50V 1μF-M	[50]
C 7017	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7018	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7020	181P526020	CHIP ELECTROLYTIC-C	04W 50V 2.2μF-M	[50]
C 7021	181P522030	CHIP ELECTROLYTIC-C	16V 10μF-M	
C 7022	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7023	181P502030	CHIP CAPACITOR	16V 10μF-M	
C 7024	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7025	154P322000	CHIP CAPACITOR	SL50V 22pF-J	
C 7026	181P504090	CHIP CAPACITOR	35V 4.7μF-M	
C 7027	181P506020	CHIP CAPACITOR	50V 2.2μF-M	
C 7028	181P506000	CHIP CAPACITOR	50V 0.47μF-M	
C 7029	181P506000	CHIP CAPACITOR	50V 0.47μF-M	
C 7030	141P131010	CHIP CAPACITOR	B50V 1500pF-K	
C 7031	181P528030	CHIP ELECTROLYTIC-C		[50]
C 7032	181P520040	CHIP ELECTROLYTIC-C	6.3V 100μF-M	
C 7033	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7034	181P528030	CHIP ELECTROLYTIC-C		[50]

[45] : VS – 45VA1 [50] : VS – 50VA1

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
C 7035	141P130090	CHIP CAPACITOR	B50V 1000pF-K	
C 7036	181P524090	CHIP CAPACITOR	35V 4.7μF-M	[50]
C 7037	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7038	181P500010	CHIP CAPACITOR	6.3V 22μF-M	
C 7039	154P322020	CHIP CAPACITOR	SL50V 27pF-J	
C 7041	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7042	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7045	154P333030	CHIP CAPACITOR	CH50V 82pF-J	[45]
C 7046	154P332090	CHIP CAPACITOR	CH50V 56pF-J	
C 7047	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7050	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7051	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7052	181P506010	CHIP CAPACITOR	04W 50V 1μF-M	
C 7053	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7054	154P324080	CHIP CAPACITOR	SL50V 330pF-J	
C 7055	154P324080	CHIP CAPACITOR	SL50V 330pF-J	
C 7060	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7101	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7102	154P323060	CHIP CAPACITOR	SL50V 100pF-J	
C 7103	181P502030	CHIP CAPACITOR	16V 10μF-M	
C 7104	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7105	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7106	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7107	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7108	181P500010	CHIP CAPACITOR	6.3V 22μF-M	
C 7109	181P500010	CHIP CAPACITOR	6.3V 22μF-M	
C 7110	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7111	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7112	141P137040	CHIP CAPACITOR	B25V 0.022μF-K	
C 7113	141P137040	CHIP CAPACITOR	B25V 0.022μF-K	
C 7114	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7115	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7116	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7117	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7118	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7119	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7120	181P504090	CHIP CAPACITOR	35V 4.7μF-M	
C 7121	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7122	181P500010	CHIP CAPACITOR	6.3V 22μF-M	
C 7123	181P506010	CHIP CAPACITOR	04W 50V 1μF-M	
C 7124	181P500010	CHIP CAPACITOR	6.3V 22μF-M	
C 7126	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7127	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7128	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7129	181P520040	CHIP ELECTROLYTIC-C	6.3V 100μF-M	
C 909	185D063080	ELECTROLYTIC-C	H200V 820μF-M 105C	
C 923	185D057020	ELECTROLYTIC-C	H50V 6800μF-M	
C 927	185D054060	ELECTROLYTIC-C	H35V 4700μF-M	
C 9A08	185D063020	ELECTROLYTIC-C	H180V 470μF-M 105C	
C 9A20	185D063030	ELECTROLYTIC-C	H180V 820μF-M 105C	
VC731	202P109040	TRIMMER CAPACITOR	7.3pF-45pF	
		SWITCHES		
S 7800	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7801	432P100010	KEY BOARD SWITCH	1-1 H=4.3	

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
S 7802	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7803	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7804	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7805	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7806	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7807	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7808	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7809	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7810	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7811	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7812	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7813	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7814	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7815	432P100030	KEY BOARD SWITCH	1-1 H=7	
		MISCELLANEOUS		
	462P004020	A-MAGNET ASSY		
	462P035010	MAGNET ASSY	RED/BLUE-CRT	
	462P035020	MAGNET ASSY	GREEN-CRT	
	453B011040	ANODE CAP		
	767D038020	MIRROR		[45]
	767D028070	MIRROR		[50]
	449C026020	CRT SOCKET		
AG6A0	224D019090	AIR GAP	1.5KV	
AG6A1	224D019090	AIR GAP	1.5KV	
AG6A2	224D019090	AIR GAP	1.5KV	
AG6A3	224D019090	AIR GAP	1.5KV	
AG6A4	224D019090	AIR GAP	1.5KV	
AG6A5	224D019090	AIR GAP	1.5KV	
AG6A6	224D019040	AIR GAP	2KV	
AG6A7	224D019040	AIR GAP	2KV	
AG6A8	224D019040	AIR GAP	2KV	
F 900	283D060020	FUSE	S5A	
F 901	283D038070	FUSE	S4A	
F 920	283D038060	FUSE	S2A	
F 9A0	283D038070	FUSE	S4A	
K 3Z1	287P073010	POWER RELAY	VB-12TKU-526-UL3	
K 3Z2	287P060010	POWER RELAY	DH12D2-0S(M)	
K 900	287P049020	POWER RELAY	DG12D1-0(M)-L	
K 901	287P049020	POWER RELAY	DG12D1-0(M)-L	
PC9A0	268P033010	PHOTO COUPLER	ON3161-R	
PJ3A01	440B095010	TERMINAL JACK		[45]
PJ3A01	440B095030	TERMINAL BOARD	PINX13+DIN	[50]
PJ3A02	440C189010	SPEAKER TERMINAL	(+)X2&(-)X2	
PJ79A0	440C181010	JACK BOARD	PINX3 & DINX1	
RT500	265P090050	THERMISTOR	NTH5D102KA	
RT501	265P090050	THERMISTOR	NTH5D102KA	
RT502	265P090050	THERMISTOR	NTH5D102KA	
RT5D0	265P090050	THERMISTOR	NTH5D102KA	
RV900	265P086010	VARISTOR	SNR-271KD10	
SP391	480P655010	SPEAKER	181P05M6910	
SP392	480P233010	SPEAKER	E040PX474M69	
SP393	480P655010	SPEAKER	181P05M6910	
SP394	480P233010	SPEAKER	E040PX474M69	
*TU101	295P266030	TUNER	ENV568D5G3	

[45] : VS – 45VA1 [50] : VS – 50VA1

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
X 201	285P029050	CRYSTAL RESONATOR	3.5795MHz	
X 202	285P015010	CRYSTAL RESONATOR	3.57955MHz	
X 7001	285P066010	CRYSTAL RESONATOR	3.5795MHz	
Z 7706	939P296090	PREAMP UNIT	HC-437M	
Z 9A01	283P030090	FUSE	SSFR 4A	
Z 9A02	283P030090	FUSE	SSFR 4A	
		PRINTED CIRCUIT BOARD ASSY'S		
*	935D156001	CONTROL PCB ASSY		
*	935C438002	CONV PCB ASSY		[45]
*	935C438001	CONV PCB ASSY		[50]
*	935C440001	CRT PCB ASSY		
*	935D157001	DISPLAY PCB ASSY		
*	935D154001	FRONT PCB ASSY		
*	935D153001	FS PCB ASSY		
*	935C437002	MAIN PCB ASSY		[45]
*	935C437001	MAIN PCB ASSY		[50]
*	935C442002	PCC PCB ASSY		[45]
*	935C442001	PCC PCB ASSY		[50]
*	930B552001	PIP PCB ASSY		
*	935C439001	POWER SUB PCB ASSY		
*	935D155001	PREAMP PCB ASSY		
*	935D162002	SIDE PCC PCB ASSY		[45]
*	935D162001	SIDE PCC PCB ASSY		[50]
*	935C441002	SIGNAL PCB ASSY		[45]
*	935C441001	SIGNAL PCB ASSY		[50]
*	935D152002	TERMINAL PCB ASSY		[45]
*	935D152001	TERMINAL PCB ASSY		[50]
		MECHANICAL PARTS		
	669D171080	SCREW	M4X25 0.7	
	669D204060	SCREW	M4X16	[45]
	669D130050	SCREW	4X20 BLACK	
	669D220030	SCREW	3X10 46LA005	
	669D220040	SCREW	3X12 46LA005	
	669D220060	SCREW	3X16 46LA005	
	669D221040	SCREW	4X12 46LA005	
	669D221080	SCREW	4X25 46LA005	
	669D220020	SCREW	3X8 46LA005	[50]
	669D212010	SCREW	3X12	
	669D222040	SCREW	3X12	
	683D010050	WASHER	104512	
		COSMETIC PARTS		
	246C160010	AC POWER CORD		
	975C125008	BAFFLE BOARD ASSY		[45]
	975C125009	BAFFLE BOARD ASSY		[50]
	975D045010	CABINET ASSY		[45]
	975D045040	CABINET ASSY		[50]
	975B064015	FRAME SCREEN ASSY		[45]
	975B064016	FRAME SCREEN ASSY		[50]
	702C948060	TRAY ASSY		
	700A590060	BACK COVER		[45]
	700C147010	BACK COVER		[50]
	700C146020	BACK COVER		[45]
	700C146090	BACK COVER		[50]
	702A355020	TERMINAL BOARD		[45]
	702A355010	TERMINAL BOARD		[50]
	589D042030	CASTER		
	540C015010	LEAD CLAMPER		
	641D173010	CLIP	AC-POWER-CORDE	
	761C273010	DOOR CATCH		
	702B712030	CONTROL DOOR ASSY		[45]
	702B737010	CONTROL DOOR ASSY		[50]
	771D090010	FOOT	(S)	
*	491P004050	FRESNEL LENS		[45]
*	491P009020	FRESNEL LENS		[50]
	761A093010	SPEAKER GRILLE		[45]
	761A092010	SPEAKER GRILLE		[50]
	734D417020	PUSH KNOB		
*	491P006090	LENTICULAR SCREEN		[45]
*	491P010080	LENTICULAR SCREEN		[50]
	440C176080	TERMINAL BOARD	ANTENNA	
		PACKING PARTS AND ACCESSORY		
1	802B392010	PACKING CASE	SLEEVE	[45]
1	802B390010	PACKING CASE	SLEEVE	[50]
2	803B692010	CUSHION TOP		
3	802B392030	PACKING CASE	REAR-CORNER	[45]
3	802B390030	PACKING CASE	REAR-CORNER	[50]
4	802B392020	PACKING CASE	BOTTOM	[45]
4	802B390020	PACKING CASE	BOTTOM	[50]
5	831C060040	PACKING BAG	1900X2200X2.0	
6	829C045020	PACKING SHEET		
7	829D126090	PACKING SHEET	2600X600X.5	
8	802B390040	PACKING CASE	FRONT-CORNER	[50]
	871D174030	INSTRUCTION BOOK		
	871D174020	INSTRUCTION BOOK		[45]
*	939P434030	REMOTE HAND UNIT		
		OTHER CRITICAL COMPONENTS		
C 506	172P170090	C-M-PLASTIC-PP	1600V 4700pF-J	
C 507	172P171000	C-M-PLASTIC-PP	1600V 5600pF-J	
C 508	172P085060	C-PLASTIC-PP	400V 0.033μF-J	
C 509	189P177020	C-M-PLASTIC-PP	400V 0.015μF-J	
C 900	189P033050	C-M-MF/PP-AC	AC125V/250V 0.1μF-M	
C 901	189P136080	C-CERAMIC-AC	B VA1 2200pF-M	
C 902	189P136080	C-CERAMIC-AC	B VA1 2200pF-M	
C 903	189P033040	C-M-MF/PP-AC	AC125V/250V 0.047μF-M	
C 904	189P136080	C-CERAMIC-AC	B VA1 2200pF-M	
C 905	189P136080	C-CERAMIC-AC	B VA1 2200pF-M	
C 906	189P136080	C-CERAMIC-AC	B VA1 2200pF-M	
C 907	189P136080	C-CERAMIC-AC	B VA1 2200pF-M	
C 9A30	189P033070	C-M-MF/PP-AC	AC125V/250V 4700pF-M	
C 9A31	189P033070	C-M-MF/PP-AC	AC125V/250V 4700pF-M	
R 900	109D031080	R-COMPOSITION	1/2W 820KΩ-K	

PARTS LIST

MODEL : VS – 40VA2/VS – 45VA2/VS – 50VA2/VS – 60VA2

In order to expedite delivery of replacement part orders.

Specify : 1. Model number/Serial number
2. Part number and Description
3. Quantity

Unless full information is supplied, delay in execution of orders will result.

∗ : Warranty return items
: Critical components

MARK	B	C	D	F	G	J	K
TOLERANCE (%)	± 0.1	± 0.25	± 0.5	± 1	± 2	± 5	± 10

MARK	M	N	V	X	Z	P	Q
TOLERANCE (%)	± 20	± 30	+ 10 – 10	+ 40 – 20	+ 80 – 20	+ 100 – 0	+ 30 – 10

MARK	B	C	D	F	G
TOLERANCE (pF)	± 0.1	± 0.25	± 0.5	± 1	± 2

ABBREVIATION

[40] : VS – 40VA2
[45] : VS – 45VA2
[50] : VS – 50VA2
[60] : VS – 60VA2

[40] : VS – 40VA2 [45] : VS – 45VA2 [50] : VS – 50VA2 [60] : VS – 60VA2

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
		TUBES	
	251C037070	CRT ASSY	RED-MONOCHROME [40]
	251C037080	CRT ASSY	GREEN-MONOCHROME [40]
	251C037090	CRT ASSY	BLUE-MONOCHROME [40]
	251C037040	CRT ASSY	RED-MONOCHROME [45]
	251C037050	CRT ASSY	GREEN-MONOCHROME [45]
	251C037060	CRT ASSY	BLUE-MONOCHROME [45]
	251C039040	CRT ASSY	RED-MONOCHROME [50]
	251C039050	CRT ASSY	GREEN-MONOCHROME [50]
	251C039060	CRT ASSY	BLUE-MONOCHROME [50]
	251C040070	CRT ASSY	RED-MONOCHROME [60]
	251C040080	CRT ASSY	GREEN-MONOCHROME [60]
	251C040090	CRT ASSY	BLUE-MONOCHROME [60]
		INTEGRATED CIRCUITS	
IC101	272P026010	IC	M51366SP
IC201	272P467010	IC	M52023SP
IC202	272P181010	IC	CX20125
IC203	266P064010	IC	M51320P
IC204	272P302010	IC	PA0030
IC205	272P865010	IC	HA11561
IC206	272P631010	IC	AN91A14K
IC209	266P686010	IC	MSM5258RS
IC2001	267P076010	IC	SI-3120C
IC2002	267P076020	IC	SI-3090C
IC2003	267P076030	IC	SI-3050C
IC2004	263P560010	IC	M62359P
IC300	272P440010	IC	LA4282
IC3001	272P351020	IC	μPC1871CU
IC3301	266P419030	IC	M5223L
IC3302	272P139020	IC	LA7953-N
IC3303	266P172010	IC	M5218L
IC3304	272P373020	IC	5222P
IC3305	266P172010	IC	M5218L
IC3306	266P419030	IC	M5223L
IC3307	272P184010	IC	LA7222
IC3308	272P184010	IC	LA7222 [50, 60]
IC401	272P239050	IC	LA7838-S
IC4A00	263P306010	IC	TC74HC123AP
IC4A01	272P263010	IC	CXA 1268-P
IC4A02	272P106020	IC	μPC4574C
IC4A03	263P053020	IC	TC4053BP
IC4B04	272P106010	IC	μPC-4570C
IC500	266P154010	IC	μPC393C
IC5A0	272P132010	IC	AN 5551
IC5A1	272P106030	IC	μPC4570HA
IC5000	272P240010	IC	M5237L
IC701	274P200010	IC	M37204M8-561SP
IC702	263P170030	IC	CAT35C102HP
IC703	272P758010	IC	M62358P
IC704	274P008020	IC	MN1380-L
IC706	267P076030	IC	SI-3050C
IC7000	272P860010	IC	HA11574
IC7100	274P177010	IC	HD49416FS
IC7101	263P548010	IC	M5M4C264L-12
IC7601	272P184010	IC	LA7222
IC7602	272P394010	IC	LA7956
IC7603	272P394010	IC	LA7956
IC7604	272P164010	IC	LA7220
IC7605	266P064010	IC	M51320P
IC7606	263P546010	IC	M66320P
IC800	272P690010	IC	PA0036
IC801	272P106020	IC	μPC4574C
IC802	272P106020	IC	μPC4574C
IC803	263P053020	IC	TC4053BP
IC804	272P106020	IC	μPC4574C
IC805	272P106020	IC	μPC4574C
IC806	272P106020	IC	μPC4574C
IC807	272P106030	IC	μPC4570HA
IC808	272P106030	IC	μPC4570HA
IC809	266P727010	IC	μPC339C/MC3302P
IC811	266P934020	IC	μPC7812H
IC812	266P919010	IC	μPC7912H
IC8A0	267P077020	IC	STK391-020
IC8A1	267P077020	IC	STK391-020
IC8501	263P306010	IC	TC74HC123AP
IC8551	267P108010	IC	STK396-010
IC8801	267P825020	IC	STK4275MB
IC9A0	267P112010	IC	STR-M6511
IC9A1	267P062010	IC	SE130N
		TRANSISTORS	
Q 101	260P356010	TRANSISTOR	2SC1906
Q 102	260P559030	TRANSISTOR	2SC1740S-S
Q 103	260P560040	TRANSISTOR	2SA933S-S
Q 104	260P559030	TRANSISTOR	2SC1740S-S
Q 105	260P356010	TRANSISTOR	2SC1906
Q 201	260P559030	TRANSISTOR	2SC1740S-S
Q 221	260P559030	TRANSISTOR	2SC1740S-S
Q 222	260P559030	TRANSISTOR	2SC1740S-S
Q 223	260P559030	TRANSISTOR	2SC1740S-S
Q 224	260P559030	TRANSISTOR	2SC1740S-S
Q 240	260P559030	TRANSISTOR	2SC1740S-S
Q 263	260P559030	TRANSISTOR	2SC1740S-S
Q 264	260P560040	TRANSISTOR	2SA933S-S
Q 280	260P559030	TRANSISTOR	2SC1740S-S
Q 2B0	260P559030	TRANSISTOR	2SC1740S-S
Q 2B1	260P559030	TRANSISTOR	2SC1740S-S
Q 2B2	260P559030	TRANSISTOR	2SC1740S-S
Q 2D0	260P559030	TRANSISTOR	2SC1740S-S
Q 2H0	260P559030	TRANSISTOR	2SC1740S-S
Q 2H1	260P560040	TRANSISTOR	2SA933S-S
Q 2K1	260P560040	TRANSISTOR	2SA933S-S
Q 2K2	260P559030	TRANSISTOR	2SC1740S-S
Q 2K3	260P559030	TRANSISTOR	2SC1740S-S
Q 2K4	260P559030	TRANSISTOR	2SC1740S-S
Q 2K5	260P559030	TRANSISTOR	2SC1740S-S
Q 2K6	260P559030	TRANSISTOR	2SC1740S-S
Q 2L1	260P560040	TRANSISTOR	2SA933S-S

[40] : VS – 40VA2　　[45] : VS – 45VA2　　[50] : VS – 50VA2　　[60] : VS – 60VA2

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
Q 2L2	260P560040	TRANSISTOR	2SA933S-S
Q 2L3	260P560040	TRANSISTOR	2SA933S-S
Q 2M0	260P559030	TRANSISTOR	2SC1740S-S
Q 2M1	260P559030	TRANSISTOR	2SC1740S-S
Q 2N0	260P559030	TRANSISTOR	2SC1740S-S
Q 2N1	260P559030	TRANSISTOR	2SC1740S-S
Q 2P1	260P559030	TRANSISTOR	2SC1740S-S
Q 2P2	260P559030	TRANSISTOR	2SC1740S-S
Q 2001	260P559030	TRANSISTOR	2SC1740S-S
Q 2004	260P559030	TRANSISTOR	2SC1740S-S
Q 2005	260P560040	TRANSISTOR	2SA933S-S
Q 2007	260P559030	TRANSISTOR	2SC1740S-S
Q 2008	260P559030	TRANSISTOR	2SC1740S-S
Q 303	260P559030	TRANSISTOR	2SC1740S-S
Q 311	260P560040	TRANSISTOR	2SA933S-S
Q 312	260P559030	TRANSISTOR	2SC1740S-S
Q 313	260P559030	TRANSISTOR	2SC1740S-S
Q 318	260P559030	TRANSISTOR	2SC1740S-S
Q 3A1	260P356010	TRANSISTOR	2SC1906
Q 3301	260P559030	TRANSISTOR	2SC1740S-S
Q 3302	260P559030	TRANSISTOR	2SC1740S-S
Q 3303	260P559030	TRANSISTOR	2SC1740S-S
Q 3304	260P559030	TRANSISTOR	2SC1740S-S
Q 3305	260P559030	TRANSISTOR	2SC1740S-S
Q 4A00	260P559030	TRANSISTOR	2SC1740S-S
Q 4A01	260P559030	TRANSISTOR	2SC1740S-S
Q 4B02	260P574030	TRANSISTOR	2SD1264A-P
Q 4B03	260P574030	TRANSISTOR	2SD1264A-P
Q 4B04	260P573020	TRANSISTOR	2SB940A-P
Q 500	260P422010	TRANSISTOR	2SC2482
Q 501	260P572010	TRANSISTOR	2SD1556
Q 502	260P559050	TRANSISTOR	2SC1740S-E
Q 503	260P559050	TRANSISTOR	2SC1740S-E
Q 504	260P559030	TRANSISTOR	2SC1740S-S
Q 506	260P559030	TRANSISTOR	2SC1740S-S
Q 5A0	260P420020	TRANSISTOR	2SC2073-B, C
Q 5000	260P559030	TRANSISTOR	2SC1740S-S
Q 5001	260P167040	TRANSISTOR	2SA673A-D
Q 6A1	260P385020	TRANSISTOR	2SC2229-Y
Q 6A2	260P385020	TRANSISTOR	2SC2229-Y
Q 6A3	260P385020	TRANSISTOR	2SC2229-Y
Q 6A4	260P571010	TRANSISTOR	2SC3789-D, E
Q 6A5	260P571010	TRANSISTOR	2SC3789-D, E
Q 6A6	260P571010	TRANSISTOR	2SC3789-D, E
Q 701	260P559030	TRANSISTOR	2SC1740S-S
Q 705	260P559030	TRANSISTOR	2SC1740S-S
Q 707	260P559030	TRANSISTOR	2SC1740S-S
Q 711	260P559030	TRANSISTOR	2SC1740S-S
Q 715	260P559030	TRANSISTOR	2SC1740S-S
Q 716	260P560040	TRANSISTOR	2SA933S-S
Q 717	260P559030	TRANSISTOR	2SC1740S-S
Q 7001	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7002	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7003	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7004	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7005	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7006	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7007	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7040	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7041	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7042	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7043	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7050	260P818020	CHIP TRANSISTOR	2SC2412K-R
Q 7051	260P818020	CHIP TRANSISTOR	2SC2412K-R
Q 7052	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7053	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7054	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7055	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7056	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7057	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7058	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7602	260P559030	TRANSISTOR	2SC1740S-S
Q 7603	260P559030	TRANSISTOR	2SC1740S-S
Q 7800	260P559030	TRANSISTOR	2SC1740S-S
Q 808	260P305010	TRANSISTOR	2SC2901
Q 809	260P459020	TRANSISTOR	2SK381-B
Q 810	260P459020	TRANSISTOR	2SK381-B
Q 811	260P459020	TRANSISTOR	2SK381-B
Q 812	260P459020	TRANSISTOR	2SK381-B
Q 830	260P693010	TRANSISTOR	2SC3064-F
Q 838	260P690010	TRANSISTOR	2SA1237-F
Q 8501	260P559030	TRANSISTOR	2SC1740S-S
Q 8521	260P559030	TRANSISTOR	2SC1740S-S
Q 8522	260P559030	TRANSISTOR	2SC1740S-S
Q 8523	260P559030	TRANSISTOR	2SC1740S-S
Q 8800	260P559030	TRANSISTOR	2SC1740S-S
Q 950	260P559050	TRANSISTOR	2SC1740S-E
Q 951	260P559050	TRANSISTOR	2SC1740S-E
Q 9A0	260P325030	TRANSISTOR	2SC2655-Y
Q 9A40	260P587020	TRANSISTOR	2SC 2333-M
Q 9A41	260P422010	TRANSISTOR	2SC2482
Q 9A42	260P422010	TRANSISTOR	2SC2482
Q 9A43	260P422010	TRANSISTOR	2SC2482
		DIODES	
D 101	264P502010	DIODE	HZ5ALL
D 102	264P470040	DIODE	EQA02-30C/RD33EB1
D 201	264P045040	DIODE	1S2471
D 202	264P045040	DIODE	1S2471
D 203	264P045040	DIODE	1S2471
D 204	264P045040	DIODE	1S2471
D 205	264P045040	DIODE	1S2471
D 206	264P045040	DIODE	1S2471
D 208	264P045040	DIODE	1S2471
D 209	264P045040	DIODE	1S2471
D 210	264P045040	DIODE	1S2471
D 212	264P045040	DIODE	1S2471
D 213	264P045040	DIODE	1S2471
D 216	264P045040	DIODE	1S2471
D 220	264P484070	DIODE	RD6. 2FB2

[40] : VS – 40VA2 [45] : VS – 45VA2 [50] : VS – 50VA2 [60] : VS – 60VA2

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
D 222	264P045040	DIODE	1S2471
D 223	264P045040	DIODE	1S2471
D 224	264P045040	DIODE	1S2471
D 225	264P045040	DIODE	1S2471
D 226	264P045040	DIODE	1S2471
D 228	264P483080	DIODE	RD5. 1FB2
D 229	264P045040	DIODE	1S2471
D 231	264P045040	DIODE	1S2471
D 232	264P464040	DIODE	EQA02-10B
D 2001	264P045040	DIODE	1S2471
D 2002	264P285010	DIODE	S5500D
D 2003	264P045040	DIODE	1S2471
D 301	264P285010	DIODE	S5500D
D 302	264P045040	DIODE	1S2471
D 303	264P045040	DIODE	1S2471
D 304	264P502020	DIODE	HZ5BLL
D 305	264P501040	DIODE	HZ3ALL
D 307	264P285010	DIODE	S5500D
D 309	264P045040	DIODE	1S2471
D 3301	264P045040	DIODE	1S2471
D 3302	264P501050	DIODE	HZ3BLL
D 400	264P464050	DIODE	EQA02-10C
D 401	264P285010	DIODE	S5500D
D 4A00	264P045040	DIODE	1S2471
D 4B01	264P045040	DIODE	1S2471
D 4B02	264P483080	DIODE	RD5. 1FB2
D 4B03	264P483080	DIODE	RD5. 1FB2
D 4B04	264P045040	DIODE	1S2471
D 500	264P533010	DIODE	RS 4FS
D 501	264P358070	DIODE	RU 4AM
D 502	264P146010	DIODE	RC 2
D 503	264P045040	DIODE	1S2471
D 504	264P045040	DIODE	1S2471
D 505	264P102020	DIODE	RU 3B
D 506	264P045040	DIODE	1S2471
D 507	264P244030	DIODE	HZT22-02
D 508	264P045040	DIODE	1S2471
D 509	264P457050	DIODE	RD3. 0EB1
D 510	264P045040	DIODE	1S2471
D 511	264P045040	DIODE	1S2471
D 512	264P101050	DIODE	RM 1B
D 515	264P045040	DIODE	1S2471
D 518	264P489010	DIODE	RD16FB1
D 5A1	264P045040	DIODE	1S2471
D 5000	264P285010	DIODE	S5500D
D 6A5	264P501020	DIODE	HZ2BLL
D 6A6	264P045040	DIODE	1S2471
D 6A7	264P045040	DIODE	1S2471
D 701	264P045040	DIODE	1S2471
D 704	264P045040	DIODE	1S2471
D 705	264P045040	DIODE	1S2471
D 706	264P486020	DIODE	RD8. 2FB3
D 711	264P045040	DIODE	1S2471
D 712	264P045040	DIODE	1S2471
D 713	264P045040	DIODE	1S2471

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
D 714	264P502020	DIODE	HZ5BLL
D 715	264P502020	DIODE	HZ5BLL [45, 50]
D 7001	264P821010	CHIP DIODE	HSM2836
D 7601	264P463040	DIODE	EQA02-09AB/RD9. 1EB1
D 7602	264P463040	DIODE	EQA02-09AB/RD9. 1EB1
D 7603	264P463040	DIODE	EQA02-09AB/RD9. 1EB1
D 78A0	264P225010	LIGHT EMITTING DIODE	LN25RP [60]
D 78B0	264P189010	LIGHT EMITTING DIODE	TLR124 [40, 45, 50]
D 803	264P045040	DIODE	1S2471
D 804	264P045040	DIODE	1S2471
D 810	264P045040	DIODE	1S2471
D 811	264P045040	DIODE	1S2471
D 820	264P045040	DIODE	1S2471
D 821	264P045040	DIODE	1S2471
D 826	264P483080	DIODE	RD5. 1FB2
D 827	264P483080	DIODE	RD5. 1FB2
D 830	264P045040	DIODE	1S2471
D 831	264P045040	DIODE	1S2471
D 832	264P045040	DIODE	1S2471
D 833	264P045040	DIODE	1S2471
D 834	264P045040	DIODE	1S2471
D 835	264P045040	DIODE	1S2471
D 836	264P045040	DIODE	1S2471
D 837	264P045040	DIODE	1S2471
D 8A0	264P045040	DIODE	1S2471
D 8A1	264P045040	DIODE	1S2471
D 8B0	264P045040	DIODE	1S2471
D 8B1	264P045040	DIODE	1S2471
D 8501	264P045040	DIODE	1S2471
D 8502	264P045040	DIODE	1S2471
D 900	264P535010	DIODE	RBV-608
D 920	264P512020	DIODE	RBV-40C
D 921	264P512020	DIODE	RBV-40C
D 951	264P487080	DIODE	RD12FB2
D 952	264P487080	DIODE	RD12FB2
D 953	264P045040	DIODE	1S2471
D 954	264P045040	DIODE	1S2471
D 960	264P358090	DIODE	RU 4YX
D 962	264P102020	DIODE	RU 3B
D 963	264P102020	DIODE	RU 3B
D 964	264P102020	DIODE	RU 3B
D 9A01	264P578010	DIODE	RG 2A
D 9A02	264P588010	DIODE	FML-G16S
D 9A03	264P358090	DIODE	RU 4YX
D 9A04	264P102040	DIODE	RU 3M
D 9A05	264P102040	DIODE	RU 3M
D 9A06	264P358090	DIODE	RU 4YX
D 9A10	264P521040	DIODE	EU 1A
D 9A11	264P622010	DIODE	AL01Z
D 9A13	264P622010	DIODE	AL01Z
D 9A42	264P102020	DIODE	RU 3B
		FILTERS	
CF101	296P024020	CERAMIC TRAP	TPS4. 5MB7
CF201	299P051050	CERAMIC RESONATOR	CSB500F9

[40] : VS – 40VA2 [45] : VS – 45VA2 [50] : VS – 50VA2 [60] : VS – 60VA2

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
CF301	296P067010	CERAMIC FILTER	SFS4. 5MB2	
DL205	296P113010	COMB FILTER		
LC7101	409P771010	LOW PASS FILTER	A285TCIS-13505	
SF101	296P096020	SAW FILTER	SAF45MVK56Z	
SF301	296P092010	SAW FILTER	SAF41MC70Z	
X 701	296P064010	CERAMIC RESONATOR	CSA-4. 00MG	
		DELAY LINES		
DL200	337P147020	DELAY LINE		
DL201	337P147010	DELAY LINE		
DL202	337P113020	DELAY LINE	100NS	
DL203	337P134010	DELAY LINE	SDL-4256	
		COILS		
	330P164010	DEFLECTION YOKE COIL	RED/BLUE-CRT	
	330P164020	DEFLECTION YOKE COIL	GREEN-CRT	
L 101	325C124030	PEAKING COIL	0. 22 μ H-M	
L 102	325C124090	PEAKING COIL	0. 68 μ H-M	
L 103	325C120010	PEAKING COIL	1. 0 μ H-M	
L 104	325C121030	PEAKING COIL	10 μ H-K	
L 105	325C122030	PEAKING COIL	68 μ H-K	
L 106	323P171010	VIF COIL	45. 75MHz	
L 107	323P111020	VIF COIL	45MHz	
L 108	325C122030	PEAKING COIL	68 μ H-K	
L 109	325C120020	PEAKING COIL	1. 2 μ H-M	
L 111	325C121030	PEAKING COIL	10 μ H-K	
L 117	325C121030	PEAKING COIL	10 μ H-K	
L 201	325C121030	PEAKING COIL	10 μ H-K	
L 202	325C101030	PEAKING COIL	10 μ H-K	
L 203	325C121090	PEAKING COIL	33 μ H-K	
L 204	325C121030	PEAKING COIL	10 μ H-K	
L 205	325C121030	PEAKING COIL	10 μ H-K	
L 207	325C121000	PEAKING COIL	5. 6 μ H-K	
L 212	325C121030	PEAKING COIL	10 μ H-K	
L 213	325C161000	PEAKING COIL	5. 6 μ H-K	
L 220	325C122040	PEAKING COIL	82 μ H-K	
L 2N0	325C162090	PEAKING COIL	220 μ H-K	
L 2N1	325C162090	PEAKING COIL	220 μ H-K	
L 2002	325C121030	PEAKING COIL	10 μ H-K	
L 2003	325C121030	PEAKING COIL	10 μ H-K	
L 2004	325C163070	PEAKING COIL	1000 μ H-K	
L 2006	325C121030	PEAKING COIL	10 μ H-K	
L 2007	325C121030	PEAKING COIL	10 μ H-K	
L 2009	321C031040	RF COIL	10 μ H-K	
L 303	327P072010	SIF COIL	TKACS-27071BY	
L 3A1	325C122030	PEAKING COIL	68 μ H-K	
L 3301	325C121030	PEAKING COIL	10 μ H-K	[50, 60]
L 3A01	325C121030	PEAKING COIL	10 μ H-K	
L 4A1	321C031090	RF COIL	33 μ H-K	
L 4A2	321C031090	RF COIL	33 μ H-K	
L 4B10	351P068010	PEAKING COIL	SB4-680-122	
L 500	321C030070	RF COIL	3. 3 μ H-K	
L 501	411P001010	FERRITE LEAD		
L 502	411P001010	FERRITE LEAD		
L 503	333P025040	H-LIN. COIL		
L 505	409P565020	FILTER COIL		
L 506	409P691010	FILTER COIL		
L 6A0	325C107020	PEAKING COIL	56 μ H-J	
L 6A1	325C107020	PEAKING COIL	56 μ H-J	
L 6A2	325C107020	PEAKING COIL	56 μ H-J	
L 6A3	325C161060	PEAKING COIL	18 μ H-K	
L 6A4	325C161060	PEAKING COIL	18 μ H-K	
L 6A5	325C161060	PEAKING COIL	18 μ H-K	
L 701	325C121030	PEAKING COIL	10 μ H-K	
L 702	325C121030	PEAKING COIL	10 μ H-K	
L 703	325C121060	PEAKING COIL	18 μ H-K	
L 704	325C121030	PEAKING COIL	10 μ H-K	
L 707	325C121030	PEAKING COIL	10 μ H-K	
L 708	321C010040	RF COIL	1000 μ H-J	
L 710	325C121030	PEAKING COIL	10 μ H-K	
L 711	325C121030	PEAKING COIL	10 μ H-K	
L 712	325C121030	PEAKING COIL	10 μ H-K	
L 7000	321C031040	RF COIL	10 μ H-K	
L 7001	325C107050	PEAKING COIL	100 μ H-J	
L 7002	325C141030	CHIP COIL	10 μ H-K	
L 7003	325C141030	CHIP COIL	10 μ H-K	
L 7004	325C141030	CHIP COIL	10 μ H-K	[45, 50]
L 7005	321C031040	RF COIL	10 μ H-K	[45, 50]
L 7101	325C141030	CHIP COIL	10 μ H-K	[45, 50]
L 7102	325C141030	CHIP COIL	10 μ H-K	
L 7103	325C141030	CHIP COIL	10 μ H-K	
L 7601	325C121030	PEAKING COIL	10 μ H-K	
L 7602	325C121030	PEAKING COIL	10 μ H-K	
L 7603	325C121030	PEAKING COIL	10 μ H-K	
L 77A1	325C121030	PEAKING COIL	10 μ H-K	
L 7800	325C121030	PEAKING COIL	10 μ H-K	
L 801	321C031040	RF COIL	10 μ H-K	
L 805	321C031040	RF COIL	10 μ H-K	
L 807	351P068030	PEAKING COIL	SBC-03	
L 808	351P068030	PEAKING COIL	SBC-03	
L 809	351P068030	PEAKING COIL	SBC-03	
L 810	351P068030	PEAKING COIL	SBC-03	
L 811	321C031040	RF COIL	10 μ H-K	
L 812	321C031040	RF COIL	10 μ H-K	
L 814	321C031090	RF COIL	33 μ H-K	
L 815	321C031090	RF COIL	33 μ H-K	
L 900	351P064030	LINE FILTER	SE26TL-40030A	
L 9A01	411D009020	FERRITE CORE FILTER		
L 9A02	411P001010	FERRITE LEAD		
L 9A03	351P070010	FILTER COIL	560 μ H-K	
L 9A10	411P001010	FERRITE LEAD		
L 9A12	411P001010	FERRITE LEAD		
LC7102	409P736010	COIL	CLOCK-ADJ 11614	
LF7000	409P696020	EMI FILTER	BLM41A01	
LF7001	409P402030	EMI FILTER	DSS306-55FZ103N100	
LF7002	409P402020	EMI FILTER	DSS306-55B102M100	
LF7003	409P402020	EMI FILTER	DSS306-55B102M100	
T 101	320P026030	TRAP COIL		

[40] : VS – 40VA2　[45] : VS – 45VA2　[50] : VS – 50VA2　[60] : VS – 60VA2

TRANSFORMERS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
	350P581010	POWER	
T 201	349P159020	CHROMA-BP	
T 4B00	349P192010	PCC	TOP-BOTTOM
T 500	336P009030	H. DRIVE	
T 501	334P191010	FLYBACK	
T 5000	349P122080	PCC	
T 9A0	350P580010	POWER	

VARIABLE RESISTORS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
VR102	127C080040	VR-SEMIFIXED	1/5W B1KΩ-M
VR1A1	127C080060	VR-SEMIFIXED	1/5W B3KΩ-M
VR204	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR205	127C080040	VR-SEMIFIXED	1/5W B1KΩ-M
VR3001	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR3002	127C080090	VR-SEMIFIXED	1/5W B20KΩ-M
VR3003	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR3004	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR3005	127C081010	VR-SEMIFIXED	1/5W B50KΩ-M
VR400	127C090080	VR-SEMIFIXED	1/5W B10KΩ-M
VR401	127C090090	VR-SEMIFIXED	1/5W B20KΩ-M
VR4A00	127C190080	VR-SEMIFIXED	1/5W B10KΩ-M
VR4A01	127C190080	VR-SEMIFIXED	1/5W B10KΩ-M
VR4A02	127C190080	VR-SEMIFIXED	1/5W B10KΩ-M
VR5A0	127C280030	VR-SEMIFIXED	1/10W B500Ω-N
VR5A2	127C280060	VR-SEMIFIXED	1/10W B3KΩ-N
VR5A3	127C280060	VR-SEMIFIXED	1/10W B3KΩ-N
VR5000	127C280040	VR-SEMIFIXED	1/10W B1KΩ-N
VR6A0	127C080010	VR-SEMIFIXED	1/5W B200Ω-M
VR6A1	127C080010	VR-SEMIFIXED	1/5W B200Ω-M
VR6A2	127C091040	VR-SEMIFIXED	1/5W B300KΩ-M
VR6A3	127C091040	VR-SEMIFIXED	1/5W B300KΩ-M
VR6A4	127C091040	VR-SEMIFIXED	1/5W B300KΩ-M
VR6A5	129D074010	VR-SEMIFIXED	0. 6W-B4M-8S-M
VR6A6	129D074010	VR-SEMIFIXED	0. 6W-B4M-8S-M
VR6A7	129D074010	VR-SEMIFIXED	0. 6W-B4M-8S-M
VR7001	127C090030	VR-SEMIFIXED	1/5W B500Ω-M
VR7002	127C090030	VR-SEMIFIXED	1/5W B500Ω-M
VR8A0	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A1	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A2	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A3	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A4	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A5	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A6	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A7	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A8	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A9	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B0	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B1	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B2	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B3	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B4	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B5	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B6	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8B7	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8B8	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8B9	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C0	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C1	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C2	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C3	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C4	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C5	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C6	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C7	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C8	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C9	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8D0	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8D1	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8E0	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8E1	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8E2	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8E3	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8501	127C090080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8800	120C330090	VR-PCB	1/20W B5KΩ-20N
VR8801	120C330090	VR-PCB	1/20W B5KΩ-20N
VR8802	120C330090	VR-PCB	1/20W B5KΩ-20N

RESISTORS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 2F1	103P532070	NETWORK	1/8W 1. 5KΩ-JX3
R 2Z9	103P553010	NETWORK	1/8W 3. 3KΩ-JX5
R 311	103P378040	FUSE	1/4W 2. 2Ω-J
R 312	103P378040	FUSE	1/4W 2. 2Ω-J
R 4B52	103P397090	FUSE	1/2W 0. 82Ω-J
R 4B53	103P397090	FUSE	1/2W 0. 82Ω-J
R 503	109D074030	CEMENT METAL	5W 3. 9KΩ-K/J
R 508	103P438050	FUSE METAL	2W 2. 7Ω-K/J
R 509	103P391030	FUSE	1/2W 100Ω-J
R 510	103P398010	FUSE	1/2W 1. 2Ω-J
R 5008	103P398000	FUSE	1/2W 1. 0Ω-J
R 754	103P603070	NETWORK	1/8W 10KΩ-JX10
R 7C0	103P532050	NETWORK	1/8W 1KΩ-JX3
R 7001	103P402090	CHIP RESISTOR	1/10W 2. 2KΩ-J
R 7002	103P401050	CHIP RESISTOR	1/10W 150Ω-J
R 7003	103P402090	CHIP RESISTOR	1/10W 2. 2KΩ-J
R 7004	103P401050	CHIP RESISTOR	1/10W 150Ω-J
R 7007	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7008	103P473060	CHIP RESISTOR	1/10W 3KΩ-F
R 7009	103P402090	CHIP RESISTOR	1/10W 2. 2KΩ-J
R 7010	103P402060	CHIP RESISTOR	1/10W 1. 2KΩ-J
R 7011	103P402070	CHIP RESISTOR	1/10W 1. 5KΩ-J
R 7012	103P403020	CHIP RESISTOR	1/10W 3. 9KΩ-J
R 7013	103P402090	CHIP RESISTOR	1/10W 2. 2KΩ-J
R 7014	103P402060	CHIP RESISTOR	1/10W 1. 2KΩ-J
R 7015	103P402070	CHIP RESISTOR	1/10W 1. 5KΩ-J
R 7016	103P473000	CHIP RESISTOR	1/10W 1. 6KΩ-F
R 7019	103P403050	CHIP RESISTOR	1/10W 6. 8KΩ-J
R 7020	103P403090	CHIP RESISTOR	1/10W 15KΩ-J

[40] : VS – 40VA2 [45] : VS – 45VA2 [50] : VS – 50VA2 [60] : VS – 60VA2

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 7021	103P403090	CHIP RESISTOR	1/10W 15KΩ-J
R 7022	103P403050	CHIP RESISTOR	1/10W 6.8KΩ-J
R 7023	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7024	103P402020	CHIP RESISTOR	1/10W 560Ω-J [40, 60]
R 7024	103P401050	CHIP RESISTOR	1/10W 150Ω-J [45, 50]
R 7025	103P404020	CHIP RESISTOR	1/10W 27KΩ-J
R 7026	103P404020	CHIP RESISTOR	1/10W 27KΩ-J
R 7027	103P401050	CHIP RESISTOR	1/10W 150Ω-J
R 7028	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7029	103P405070	CHIP RESISTOR	1/10W 470KΩ-J
R 7031	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7032	103P409050	CHIP RESISTOR	1/10W 0Ω [45, 50]
R 7033	103P409050	CHIP RESISTOR	1/10W 0Ω [45, 50]
R 7034	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7041	103P473090	CHIP RESISTOR	1/10W 3.9KΩ-F
R 7042	103P473090	CHIP RESISTOR	1/10W 3.9KΩ-F
R 7043	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7044	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7045	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7046	103P474090	CHIP RESISTOR	1/10W 10KΩ-F
R 7047	103P473030	CHIP RESISTOR	1/10W 2.2KΩ-F
R 7048	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7049	103P403030	CHIP RESISTOR	1/10W 4.7KΩ-J
R 7060	103P475040	CHIP RESISTOR	1/10W 16KΩ-F
R 7061	103P475040	CHIP RESISTOR	1/10W 16KΩ-F
R 7062	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7063	103P475090	CHIP RESISTOR	1/10W 27KΩ-F
R 7064	103P475040	CHIP RESISTOR	1/10W 16KΩ-F
R 7065	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7066	103P475040	CHIP RESISTOR	1/10W 16KΩ-F
R 7067	103P475040	CHIP RESISTOR	1/10W 16KΩ-F
R 7068	103P471060	CHIP RESISTOR	1/10W 430Ω-F
R 7070	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7071	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7072	103P402010	CHIP RESISTOR	1/10W 470Ω-J
R 7073	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7074	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7075	103P402010	CHIP RESISTOR	1/10W 470Ω-J
R 7080	103P472060	CHIP RESISTOR	1/10W 1.1KΩ-F
R 7081	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 7082	103P474030	CHIP RESISTOR	1/10W 5.6KΩ-F
R 7083	103P472000	CHIP RESISTOR	1/10W 620Ω-F
R 7084	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7085	103P476010	CHIP RESISTOR	1/10W 33KΩ-F
R 7086	103P476060	CHIP METAL	1/10W 51KΩ-F
R 7087	103P401070	CHIP RESISTOR	1/10W 220Ω-J
R 7088	103P401070	CHIP RESISTOR	1/10W 220Ω-J
R 7100	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7101	103P406010	CHIP RESISTOR	1/10W 1MΩ-J [45, 50]
R 7102	103P403070	CHIP RESISTOR	1/10W 10KΩ-J
R 7103	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J
R 7104	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J
R 7105	103P403050	CHIP RESISTOR	1/10W 6.8KΩ-J
R 7106	103P403020	CHIP RESISTOR	1/10W 3.9KΩ-J
R 7107	103P402020	CHIP RESISTOR	1/10W 560Ω-J

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 7108	103P403020	CHIP RESISTOR	1/10W 3.9KΩ-J
R 7109	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 7111	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 7112	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 7123	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7124	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7125	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7126	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7127	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7128	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7129	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7130	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7131	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7150	103P479000	CHIP METAL	1/10W 510KΩ-F
R 901	109D071020	CEMENT WIRE	15W 2.2Ω-K
R 9A15	102P106080	WIRE	2W 0.1Ω-J
R 9A16	102P106080	WIRE	2W 0.1Ω-J
		CAPACITORS AND TRIMMERS	
C 408	189P071050	C-M-PLASTIC-PP	200V 0.33μF-J
C 4B30	189P071090	C-M-PLASTIC-PP	200V 0.27μF-J
C 510	189P071010	C-M-PLASTIC-PP	200V 0.56μF-J
C 511	189P071070	C-M-PLASTIC-PP	200V 0.39μF-J
C 512	189P071080	C-M-PLASTIC-PP	200V 0.47μF-J
C 513	189P071010	C-M-PLASTIC-PP	200V 0.56μF-J
C 515	189P072020	C-M-POLYESTER	1600V 0.1μF-K
C 520	189P071040	C-M-PLASTIC-PP	200V 0.12μF-J
C 532	189P071050	C-M-PLASTIC-PP	200V 0.33μF-J
C 716	149D811030	CR-MULTIPLE	50V 10000PFX4
C 731	202P109040	TRIMMER CAPACITOR	7.3pF-45pF
C 7001	181P504090	CHIP CAPACITOR	35V 4.7μF-M
C 7002	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7003	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7004	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7006	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7007	181P522030	CHIP ELECTROLYTIC-C	16V 10μF-M
C 7008	154P323000	CHIP CAPACITOR	SL50V 56pF-J [45, 50]
C 7009	154P324000	CHIP CAPACITOR	SL50V 150pF-J
C 7010	141P137060	CHIP CAPACITOR	B50V 0.033μF-K
C 7011	181P506020	CHIP CAPACITOR	50V 2.2μF-M
C 7012	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7014	181P522060	CHIP ELECTROLYTIC-C	16V 47μF-M
C 7015	181P500010	CHIP CAPACITOR	6.3V 22μF-M [40, 60]
C 7015	181P506010	CHIP CAPACITOR	04W 50V 1μF-M [45, 50]
C 7016	181P526010	CHIP CAPACITOR	50V 1μF-M [40, 60]
C 7017	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7018	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7020	181P526020	CHIP ELECTROLYTIC-C	04W 50V 2.2μF-M [40, 60]
C 7021	181P522030	CHIP ELECTROLYTIC-C	16V 10μF-M
C 7022	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7023	181P502030	CHIP CAPACITOR	16V 10μF-M
C 7024	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7025	154P322000	CHIP CAPACITOR	SL50V 22pF-J
C 7026	181P504090	CHIP CAPACITOR	35V 4.7μF-M

[40] : VS－40VA2　[45] : VS－45VA2　[50] : VS－50VA2　[60] : VS－60VA2

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
C 7027	181P506020	CHIP CAPACITOR	50V 2.2μF-M
C 7028	181P506000	CHIP CAPACITOR	50V 0.47μF-M
C 7029	181P506000	CHIP CAPACITOR	50V 0.47μF-M
C 7030	141P131010	CHIP CAPACITOR	B50V 1500pF-K
C 7031	181P528030	CHIP ELECTROLYTIC-C	[40, 60]
C 7032	181P520040	CHIP ELECTROLYTIC-C	6.3V 100μF-M
C 7033	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7034	181P528030	CHIP ELECTROLYTIC-C	[40, 60]
C 7035	141P130090	CHIP CAPACITOR	B50V 1000pF-K
C 7036	181P524090	CHIP CAPACITOR	35V 4.7μF-M [40, 60]
C 7037	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7038	181P500010	CHIP CAPACITOR	6.3V 22μF-M
C 7039	154P322020	CHIP CAPACITOR	SL50V 27pF-J
C 7041	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7042	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7045	154P333030	CHIP CAPACITOR	CH50V 82pF-J [45, 50]
C 7046	154P332090	CHIP CAPACITOR	CH50V 56pF-J
C 7047	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7050	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7051	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7052	181P506010	CHIP CAPACITOR	04W 50V 1μF-M
C 7053	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7054	154P324080	CHIP CAPACITOR	SL50V 330pF-J
C 7055	154P324080	CHIP CAPACITOR	SL50V 330pF-J
C 7060	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7101	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7102	154P323060	CHIP CAPACITOR	SL50V 100pF-J
C 7103	181P502030	CHIP CAPACITOR	16V 10μF-M
C 7104	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7105	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7106	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7107	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7108	181P500010	CHIP CAPACITOR	6.3V 22μF-M
C 7109	181P500010	CHIP CAPACITOR	6.3V 22μF-M
C 7110	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7111	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7112	141P137040	CHIP CAPACITOR	B25V 0.022μF-K
C 7113	141P137040	CHIP CAPACITOR	B25V 0.022μF-K
C 7114	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7115	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7116	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7117	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7118	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7119	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7120	181P504090	CHIP CAPACITOR	35V 4.7μF-M
C 7121	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7122	181P500010	CHIP CAPACITOR	6.3V 22μF-M
C 7123	181P500010	CHIP CAPACITOR	6.3V 22μF-M [40]
C 7123	181P506010	CHIP CAPACITOR	04W 50V 1μF-M [45, 50, 60]
C 7124	181P500010	CHIP CAPACITOR	6.3V 22μF-M
C 7126	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7127	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7128	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7129	181P520040	CHIP ELECTROLYTIC-C	6.3V 100μF-M
C 909	185D063080	ELECTROLYTIC-C	H200V 820μF-M 105C
C 923	185D057020	ELECTROLYTIC-C	H50V 6800μF-M
C 927	185D054060	ELECTROLYTIC-C	H35V 4700μF-M
C 9A08	185D063020	ELECTROLYTIC-C	H180V 470μF-M 105C
C 9A20	185D063030	ELECTROLYTIC-C	H180V 820μF-M 105C
VC731	202P109040	TRIMMER CAPACITOR	7.3pF-45pF
		SWITCHES	
S 7800	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7801	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7802	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7803	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7804	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7805	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7806	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7807	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7808	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7809	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7810	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7811	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7812	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7813	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7814	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7815	432P100030	KEY BOARD SWITCH	1-1 H=7
		MISCELLANEOUS	
	462P004020	A-MAGNET ASSY	
	462P016070	F-A MAGNET ASSY	[40]
	462P020090	F-A MAGNET ASSY	[40]
	462P022020	F-A MAGNET ASSY	[40]
	462P035010	MAGNET ASSY	RED/BLUE-CRT [45, 50, 60]
	462P035020	MAGNET ASSY	GREEN-CRT [45, 50, 60]
	453B011040	ANODE CAP	
	767D027020	MIRROR	[40]
	767D038020	MIRROR	[45]
	767D028070	MIRROR	[50]
	767D039010	MIRROR	[60]
	449C026020	CRT SOCKET	
AG6A0	224D019090	AIR GAP	1.5KV
AG6A1	224D019090	AIR GAP	1.5KV
AG6A2	224D019090	AIR GAP	1.5KV
AG6A3	224D019090	AIR GAP	1.5KV
AG6A4	224D019090	AIR GAP	1.5KV
AG6A5	224D019090	AIR GAP	1.5KV
AG6A6	224D019040	AIR GAP	2KV
AG6A7	224D019040	AIR GAP	2KV
AG6A8	224D019040	AIR GAP	2KV
F 900	283D060020	FUSE	S5A
F 901	283D038070	FUSE	S4A
F 920	283D038060	FUSE	S2A
F 9A0	283D038070	FUSE	S4A
K 3Z1	287P073010	POWER RELAY	VB-12TKU-526-UL3
K 3Z2	287P060010	POWER RELAY	DH12D2-0S(M)
K 900	287P049020	POWER RELAY	DG12D1-0(M)-L
K 901	287P049020	POWER RELAY	DG12D1-0(M)-L

[40] : VS – 40VA2 [45] : VS – 45VA2 [50] : VS – 50VA2 [60] : VS – 60VA2

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
PC9A0	268P033010	PHOTO COUPLER	ON3161-R
PJ3A01	440B095010	TERMINAL JACK	[40, 45]
PJ3A01	440B095030	TERMINAL BOARD	PINX13+DIN [50, 60]
PJ3A02	440C189010	SPEAKER TERMINAL	(+)X2&(-)X2
PJ79A0	440C181010	JACK BOARD	PINX3 & DINX1
RT500	265P090050	THERMISTOR	NTH5D102KA
RT501	265P090050	THERMISTOR	NTH5D102KA
RT502	265P090050	THERMISTOR	NTH5D102KA
RT5D0	265P090050	THERMISTOR	NTH5D102KA
RV900	265P086010	VARISTOR	SNR-271KD10
SP391	480P655010	SPEAKER	181P05M6910
SP392	480P233010	SPEAKER	E040PX474M69[45, 50, 60]
SP393	480P655010	SPEAKER	181P05M6910
SP394	480P233010	SPEAKER	E040PX474M69[45, 50, 60]
*TU101	295P266030	TUNER	ENV568D5G3
X 201	285P029050	CRYSTAL RESONATOR	3. 5795MHz
X 202	285P015010	CRYSTAL RESONATOR	3. 57955MHz
X 7001	285P066010	CRYSTAL RESONATOR	3. 5795MHz
Z 7706	939P296090	PREAMP UNIT	HC-437M
Z 9A01	283P030090	FUSE	SSFR 4A
Z 9A02	283P030090	FUSE	SSFR 4A
		PRINTED CIRCUIT BOARD ASSY'S	
*	935D156001	CONTROL PCB ASSY	
*	935C438003	CONV PCB ASSY	[40]
*	935C438002	CONV PCB ASSY	[45]
*	935C438001	CONV PCB ASSY	[50]
*	935C438004	CONV PCB ASSY	[60]
*	935C440001	CRT PCB ASSY	
*	935D157001	DISPLAY PCB ASSY	[40, 45, 50]
*	935D167001	DISPLAY PCB ASSY	[60]
*	935D154001	FRONT PCB ASSY	
*	935D153001	FS PCB ASSY	
*	935C437006	MAIN PCB ASSY	[40]
*	935C437002	MAIN PCB ASSY	[45]
*	935C437001	MAIN PCB ASSY	[50]
*	935C437005	MAIN PCB ASSY	[60]
*	935C442003	PCC PCB ASSY	[40]
*	935C442002	PCC PCB ASSY	[45]
*	935C442001	PCC PCB ASSY	[50]
*	935C442004	PCC PCB ASSY	[60]
*	930B552003	PIP PCB ASSY	[40, 60]
*	930B552001	PIP PCB ASSY	[45, 50]
*	935C439001	POWER SUB PCB ASSY	
*	935D155001	PREAMP PCB ASSY	
*	935D162003	SIDE PCC PCB ASSY	[40]
*	935D162002	SIDE PCC PCB ASSY	[45]
*	935D162001	SIDE PCC PCB ASSY	[50]
*	935D162004	SIDE PCC PCB ASSY	[60]
*	935C441002	SIGNAL PCB ASSY	[40, 45]
*	935C441001	SIGNAL PCB ASSY	[50, 60]
*	935D152002	TERMINAL PCB ASSY	[40, 45]
*	935D152001	TERMINAL PCB ASSY	[50, 60]

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
		MECHANICAL PARTS	
	669D171080	SCREW	M4X25 0.7
	669D204070	SCREW	M4X20 [40]
	669D204060	SCREW	M4X16 [45, 60]
	669D130050	SCREW	4X20 BLACK [40, 45, 50]
	669D140070	SCREW	4X16 [60]
	669D220030	SCREW	3X10 46LA005
	669D220040	SCREW	3X12 46LA005
	669D220060	SCREW	3X16 46LA005
	669D221040	SCREW	4X12 46LA005
	669D220020	SCREW	3X8 46LA005 [40, 50, 60]
	669D221080	SCREW	4X25 46LA005[45, 50, 60]
	669D221060	SCREW	4X16 46LA005 [60]
	669D212010	SCREW	3X12
	669D222060	SCREW	3X16-12 [40]
	669D222040	SCREW	3X12 [45, 50, 60]
	683D010050	WASHER	104512
		COSMETIC PARTS	
	246C160010	AC POWER CORD	
	762B289010	BACK BOARD ASSY	[60]
	740B123010	BAFFLE BOARD ASSY	[40]
	975C125008	BAFFLE BOARD ASSY	[45]
	975C125009	BAFFLE BOARD ASSY	[50]
	975C125011	BAFFLE BOARD ASSY	[60]
	975D045060	CABINET ASSY	[40]
	975D045020	CABINET ASSY	[45]
	975D045030	CABINET ASSY	[50]
	975D045050	CABINET ASSY	[60]
	975B069002	FRAME SCREEN ASSY	[40]
	975B064019	FRAME SCREEN ASSY	[45]
	975B064017	FRAME SCREEN ASSY	[50]
	975B071010	FRAME SCREEN ASSY	[60]
	702C948060	TRAY ASSY	[45, 50]
	700C147030	BACK COVER	[40]
	700A565020	BACK COVER	(F) [40]
	700A566030	BACK COVER	[40]
	700C146040	BACK COVER	[45]
	700C146020	BACK COVER	[45]
	700A590070	BACK COVER	[50]
	700C146050	BACK COVER	[50]
	700C147020	BACK COVER	[60]
	702C991010	SIDE PANEL	[60]
	702C991020	SIDE PANEL	[60]
	702A355020	TERMINAL BOARD	[40, 45]
	702A355010	TERMINAL BOARD	[50, 60]
	589D042030	CASTER	[40, 45, 50]
	589C017010	CASTER	[60]
	540C015010	LEAD CLAMPER	
	641D173010	CLIP	AC-POWER-CORD
	621D840010	SCREEN CLIP	UP/DOWN [60]
	621D840070	SCREEN CLIP	SIDE-L/R [60]
	761C437010	DOOR CATCH	[40, 60]
	761C273010	DOOR CATCH	[45, 50]

[40] : VS − 40VA2　　[45] : VS − 45VA2　　[50] : VS − 50VA2　　[60] : VS − 60VA2

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
	702A330010	CONTROL DOOR ASSY	[40]
	702B712030	CONTROL DOOR ASSY	[45]
	702B737010	CONTROL DOOR ASSY	[50]
	702C837000	CONTROL DOOR ASSY	[60]
	771D091010	FOOT	(L) [40]
	771D090010	FOOT	(S) [40, 45, 50]
*	491P014020	FRESNEL LENS	[40]
*	491P004050	FRESNEL LENS	[45]
*	491P009020	FRESNEL LENS	[50]
*	491P016030	FRESNEL LENS	[60]
	702B826010	FRONT UNIT	[60]
	702B825090	FRONT PANEL	[60]
	761A085010	SPEAKER GRILLE	[40]
	761A093010	SPEAKER GRILLE	[45]
	761A092010	SPEAKER GRILLE	[50]
	740B159010	SPEAKER GRILLE	[60]
	734D417020	PUSH KNOB	
*	491P013050	LENTICULAR SCREEN	[40]
*	491P006090	LENTICULAR SCREEN	[45]
*	491P010080	LENTICULAR SCREEN	[50]
*	491P015050	LENTICULAR SCREEN	[60]
	440C176080	TERMINAL BOARD	ANTENNA

PACKING PARTS AND ACCESSORY

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
1	803B684010	CUSHION TOP	[40]
1	802B392040	PACKING CASE	SLEEVE [45]
1	802B390050	PACKING CASE	SLEEVE [50]
1	803B695010	CUSHION TOP	[60]
2	802B311030	PACKING CASE	REAR-CUSHION [40]
2	803B692010	CUSHION TOP	[45, 50]
2	802B315020	PACKING CASE	[60]
3	802B311040	PACKING CASE	SLEEVE [40]
3	802B392030	PACKING CASE	REAR-CORNER [45]
3	802B390030	PACKING CASE	REAR-CORNER [50]
3	802B315050	PACKING CASE	SLEEVE [60]
4	802B311020	PACKING CASE	BOTTOM [40]
4	802B392020	PACKING CASE	BOTTOM [45]
4	802B390020	PACKING CASE	BOTTOM [50]
4	802B315070	PACKING CASE	SIDE-LEFT [60]
5	831C060040	PACKING BAG	1900X2200X2.0 [40, 45, 50]
5	802B315060	PACKING CASE	SIDE-RIGHT [60]
6	829C045020	PACKING SHEET	[40, 45, 50]
6	831C060060	PACKING BAG	2500X2300X2.0 [60]
7	829D084010	PACKING SHEET	[40]
7	829D126090	PACKING SHEET	2600X600X.5 [45, 50]
7	829C047010	PACKING SHEET	TOP [60]
8	802B390040	PACKING CASE	FRONT-CORNER [50]
8	829D126030	PACKING SHEET	BOTTOM [60]
	871D178020	INSTRUCTION BOOK	[40]
	871D174020	INSTRUCTION BOOK	[45]
	871D174030	INSTRUCTION BOOK	[45, 50, 60]
	871D178030	INSTRUCTION BOOK	[60]
*	939P347050	REMOTE HAND UNIT	[40]
*	939P434030	REMOTE HAND UNIT	[45, 50, 60]

OTHER CRITICAL COMPONENTS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
C 506	172P170090	C-M-PLASTIC-PP	1600V 4700pF-J
C 507	172P171000	C-M-PLASTIC-PP	1600V 5600pF-J
C 508	172P085060	C-PLASTIC-PP	400V 0.033μF-J
C 509	189P177020	C-M-PLASTIC-PP	400V 0.015μF-J
C 900	189P033050	C-M-MF/PP-AC	AC125V/250V 0.1μF-M
C 901	189P136080	C-CERAMIC-AC	B VA1 2200pF-M
C 902	189P136080	C-CERAMIC-AC	B VA1 2200pF-M
C 903	189P033040	C-M-MF/PP-AC	AC125V/250V 0.047μF-M
C 904	189P136080	C-CERAMIC-AC	B VA1 2200pF-M
C 905	189P136080	C-CERAMIC-AC	B VA1 2200pF-M
C 906	189P136080	C-CERAMIC-AC	B VA1 2200pF-M
C 907	189P136080	C-CERAMIC-AC	B VA1 2200pF-M
C 9A30	189P033070	C-M-MF/PP-AC	AC125V/250V 4700pF-M
C 9A31	189P033070	C-M-MF/PP-AC	AC125V/250V 4700pF-M
R 900	109D031080	R-COMPOSITION	1/2W 820KΩ-K

PARTS LIST

MODEL : VS – 45VA2CA/VS – 50VA2CA/VS – 60VA2CA

In order to expedite delivery of replacement part orders.

Specify : 1. Model number/Serial number
2. Part number and Description
3. Quantity

Unless full information is supplied, delay in execution of orders will result.

▨ : Critical components

MARK	B	C	D	F	G	J	K
TOLERANCE (%)	± 0.1	± 0.25	± 0.5	± 1	± 2	± 5	± 10

MARK	M	N	V	X	Z	P	Q
TOLERANCE (%)	± 20	± 30	+ 10 – 10	+ 40 – 20	+ 80 – 20	+ 100 – 0	+ 30 – 10

MARK	B	C	D	F	G
TOLERANCE (pF)	± 0.1	± 0.25	± 0.5	± 1	± 2

ABBREVIATION

[45] : VS – 45VA2CA
[50] : VS – 50VA2CA
[60] : VS – 60VA2CA

[45] : VS – 45VA2CA [50] : VS – 50VA2CA [60] : VS – 60VA2CA

TUBES

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
	251C037040	CRT ASSY	RED-MONOCHROME [45]
	251C037050	CRT ASSY	GREEN-MONOCHROME [45]
	251C037060	CRT ASSY	BLUE-MONOCHROME [45]
	251C039040	CRT ASSY	RED-MONOCHROME [50]
	251C039050	CRT ASSY	GREEN-MONOCHROME [50]
	251C039060	CRT ASSY	BLUE-MONOCHROME [50]
	251C040070	CRT ASSY	RED-MONOCHROME [60]
	251C040080	CRT ASSY	GREEN-MONOCHROME [60]
	251C040090	CRT ASSY	BLUE-MONOCHROME [60]

INTEGRATED CIRCUITS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
IC101	272P026010	IC	M51366SP
IC201	272P467010	IC	M52023SP
IC202	272P181010	IC	CX20125
IC203	266P064010	IC	M51320P
IC204	272P302010	IC	PA0030
IC205	272P865010	IC	HA11561
IC206	272P631010	IC	AN91A14K
IC209	266P686010	IC	MSM5258RS
IC2001	267P076010	IC	SI-3120C
IC2002	267P076020	IC	SI-3090C
IC2003	267P076030	IC	SI-3050C
IC2004	263P560010	IC	M62359P
IC300	272P440010	IC	LA4282
IC3001	272P351020	IC	μPC1871CU
IC3301	266P419030	IC	M5223L
IC3302	272P139020	IC	LA7953-N
IC3303	266P172010	IC	M5218L
IC3304	272P373020	IC	5222P
IC3305	266P172010	IC	M5218L
IC3306	266P419030	IC	M5223L
IC3307	272P184010	IC	LA7222
IC3308	272P184010	IC	LA7222 [50, 60]
IC401	272P239050	IC	LA7838-S
IC4A00	263P306010	IC	TC74HC123AP
IC4A01	272P263010	IC	CXA 1268-P
IC4A02	272P106020	IC	μPC4574C
IC4A03	263P053020	IC	TC4053BP
IC4B04	272P106010	IC	μPC-4570C
IC500	266P154010	IC	μPC393C
IC5A0	272P132010	IC	AN 5551
IC5A1	272P106030	IC	μPC4570HA
IC5000	272P240010	IC	M5237L
IC701	274P200010	IC	M37204M8-561SP
IC702	263P170030	IC	CAT35C102HP
IC703	272P758010	IC	M62358P
IC704	274P008020	IC	MN1380-L
IC706	267P076030	IC	SI-3050C
IC7000	272P860010	IC	HA11574
IC7100	274P177010	IC	HD49416FS
IC7101	263P548010	IC	M5M4C264L-12
IC7601	272P184010	IC	LA7222
IC7602	272P394010	IC	LA7956
IC7603	272P394010	IC	LA7956
IC7604	272P164010	IC	LA7220
IC7605	266P064010	IC	M51320P
IC7606	263P546010	IC	M66320P
IC800	272P690010	IC	PA0036
IC801	272P106020	IC	μPC4574C
IC802	272P106020	IC	μPC4574C
IC803	263P053020	IC	TC4053BP
IC804	272P106020	IC	μPC4574C
IC805	272P106020	IC	μPC4574C
IC806	272P106020	IC	μPC4574C
IC807	272P106030	IC	μPC4570HA
IC808	272P106030	IC	μPC4570HA
IC809	266P727010	IC	μPC339C/MC3302P
IC811	266P934020	IC	μPC7812H
IC812	266P919010	IC	μPC7912H
IC8A0	267P077020	IC	STK391-020
IC8A1	267P077020	IC	STK391-020
IC8501	263P306010	IC	TC74HC123AP
IC8551	267P108010	IC	STK396-010
IC8801	267P825020	IC	STK4275MB
IC9A0	267P112010	IC	STR-M6511
IC9A1	267P062010	IC	SE130N

TRANSISTORS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
Q 101	260P356010	TRANSISTOR	2SC1906
Q 102	260P559030	TRANSISTOR	2SC1740S-S
Q 103	260P560040	TRANSISTOR	2SA933S-S
Q 104	260P559030	TRANSISTOR	2SC1740S-S
Q 105	260P356010	TRANSISTOR	2SC1906
Q 201	260P559030	TRANSISTOR	2SC1740S-S
Q 221	260P559030	TRANSISTOR	2SC1740S-S
Q 222	260P559030	TRANSISTOR	2SC1740S-S
Q 223	260P559030	TRANSISTOR	2SC1740S-S
Q 224	260P559030	TRANSISTOR	2SC1740S-S
Q 240	260P559030	TRANSISTOR	2SC1740S-S
Q 263	260P559030	TRANSISTOR	2SC1740S-S
Q 264	260P560040	TRANSISTOR	2SA933S-S
Q 280	260P559030	TRANSISTOR	2SC1740S-S
Q 2B0	260P559030	TRANSISTOR	2SC1740S-S
Q 2B1	260P559030	TRANSISTOR	2SC1740S-S
Q 2B2	260P559030	TRANSISTOR	2SC1740S-S
Q 2D0	260P559030	TRANSISTOR	2SC1740S-S
Q 2H0	260P559030	TRANSISTOR	2SC1740S-S
Q 2H1	260P560040	TRANSISTOR	2SA933S-S
Q 2K1	260P560040	TRANSISTOR	2SA933S-S
Q 2K2	260P559030	TRANSISTOR	2SC1740S-S
Q 2K3	260P559030	TRANSISTOR	2SC1740S-S
Q 2K4	260P559030	TRANSISTOR	2SC1740S-S
Q 2K5	260P559030	TRANSISTOR	2SC1740S-S
Q 2K6	260P559030	TRANSISTOR	2SC1740S-S
Q 2L1	260P560040	TRANSISTOR	2SA933S-S
Q 2L2	260P560040	TRANSISTOR	2SA933S-S
Q 2L3	260P560040	TRANSISTOR	2SA933S-S
Q 2M0	260P559030	TRANSISTOR	2SC1740S-S

[45] : VS – 45VA2CA [50] : VS – 50VA2CA [60] : VS – 60VA2CA

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
Q 2M1	260P559030	TRANSISTOR	2SC1740S-S	
Q 2N0	260P559030	TRANSISTOR	2SC1740S-S	
Q 2N1	260P559030	TRANSISTOR	2SC1740S-S	
Q 2P1	260P559030	TRANSISTOR	2SC1740S-S	
Q 2P2	260P559030	TRANSISTOR	2SC1740S-S	
Q 2001	260P559030	TRANSISTOR	2SC1740S-S	
Q 2004	260P559030	TRANSISTOR	2SC1740S-S	
Q 2005	260P560040	TRANSISTOR	2SA933S-S	
Q 303	260P559030	TRANSISTOR	2SC1740S-S	
Q 311	260P560040	TRANSISTOR	2SA933S-S	
Q 312	260P559030	TRANSISTOR	2SC1740S-S	
Q 313	260P559030	TRANSISTOR	2SC1740S-S	
Q 318	260P559030	TRANSISTOR	2SC1740S-S	
Q 3A1	260P356010	TRANSISTOR	2SC1906	
Q 3301	260P559030	TRANSISTOR	2SC1740S-S	
Q 3302	260P559030	TRANSISTOR	2SC1740S-S	
Q 3303	260P559030	TRANSISTOR	2SC1740S-S	
Q 3304	260P559030	TRANSISTOR	2SC1740S-S	
Q 3305	260P559030	TRANSISTOR	2SC1740S-S	
Q 4A00	260P559030	TRANSISTOR	2SC1740S-S	
Q 4A01	260P559030	TRANSISTOR	2SC1740S-S	
Q 4B02	260P574030	TRANSISTOR	2SD1264A-P	[45, 50]
Q 4B02	260P574020	TRANSISTOR	2SD1264A-P	[60]
Q 4B03	260P574030	TRANSISTOR	2SD1264A-P	[45, 50]
Q 4B03	260P574020	TRANSISTOR	2SD1264A-P	[60]
Q 4B04	260P573020	TRANSISTOR	2SB940A-P	
Q 500	260P422010	TRANSISTOR	2SC2482	
Q 501	260P572010	TRANSISTOR	2SD1556	
Q 502	260P559050	TRANSISTOR	2SC1740S-E	
Q 503	260P559050	TRANSISTOR	2SC1740S-E	
Q 504	260P559030	TRANSISTOR	2SC1740S-S	
Q 506	260P559030	TRANSISTOR	2SC1740S-S	
Q 5A0	260P420020	TRANSISTOR	2SC2073-B, C	
Q 5000	260P559030	TRANSISTOR	2SC1740S-S	
Q 5001	260P167040	TRANSISTOR	2SA673A-D	
Q 6A1	260P385020	TRANSISTOR	2SC2229-Y	
Q 6A2	260P385020	TRANSISTOR	2SC2229-Y	
Q 6A3	260P385020	TRANSISTOR	2SC2229-Y	
Q 6A4	260P571010	TRANSISTOR	2SC3789-D, E	
Q 6A5	260P571010	TRANSISTOR	2SC3789-D, E	
Q 6A6	260P571010	TRANSISTOR	2SC3789-D, E	
Q 701	260P559030	TRANSISTOR	2SC1740S-S	
Q 705	260P559030	TRANSISTOR	2SC1740S-S	
Q 707	260P559030	TRANSISTOR	2SC1740S-S	
Q 711	260P559030	TRANSISTOR	2SC1740S-S	
Q 715	260P559030	TRANSISTOR	2SC1740S-S	
Q 716	260P560040	TRANSISTOR	2SA933S-S	
Q 717	260P559030	TRANSISTOR	2SC1740S-S	
Q 7001	260P817030	CHIP TRANSISTOR	2SA1037K	
Q 7002	260P817030	CHIP TRANSISTOR	2SA1037K	
Q 7003	260P817030	CHIP TRANSISTOR	2SA1037K	
Q 7004	260P817030	CHIP TRANSISTOR	2SA1037K	
Q 7005	260P817030	CHIP TRANSISTOR	2SA1037K	
Q 7006	260P817030	CHIP TRANSISTOR	2SA1037K	
Q 7007	260P818080	CHIP TRANSISTOR	2SC2412K-R	

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
Q 7040	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7041	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7042	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7043	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7050	260P818020	CHIP TRANSISTOR	2SC2412K-R
Q 7051	260P818020	CHIP TRANSISTOR	2SC2412K-R
Q 7052	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7053	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7054	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7055	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7056	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7057	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7058	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7602	260P559030	TRANSISTOR	2SC1740S-S
Q 7603	260P559030	TRANSISTOR	2SC1740S-S
Q 7800	260P559030	TRANSISTOR	2SC1740S-S
Q 808	260P305010	TRANSISTOR	2SC2901
Q 809	260P459020	TRANSISTOR	2SK381-B
Q 810	260P459020	TRANSISTOR	2SK381-B
Q 811	260P459020	TRANSISTOR	2SK381-B
Q 812	260P459020	TRANSISTOR	2SK381-B
Q 830	260P693010	TRANSISTOR	2SC3064-F
Q 838	260P690010	TRANSISTOR	2SA1237-F
Q 8501	260P559030	TRANSISTOR	2SC1740S-S
Q 8521	260P559030	TRANSISTOR	2SC1740S-S
Q 8522	260P559030	TRANSISTOR	2SC1740S-S
Q 8523	260P559030	TRANSISTOR	2SC1740S-S
Q 8800	260P559030	TRANSISTOR	2SC1740S-S
Q 950	260P559050	TRANSISTOR	2SC1740S-E
Q 951	260P559050	TRANSISTOR	2SC1740S-E
Q 9A0	260P325030	TRANSISTOR	2SC2655-Y
Q 9A40	260P587020	TRANSISTOR	2SC 2333-M
Q 9A41	260P422010	TRANSISTOR	2SC2482
Q 9A42	260P422010	TRANSISTOR	2SC2482
Q 9A43	260P422010	TRANSISTOR	2SC2482
		DIODES	
D 101	264P502010	DIODE	HZ5ALL
D 102	264P470040	DIODE	EQA02-30C/RD33EB1
D 201	264P045040	DIODE	1S2471
D 202	264P045040	DIODE	1S2471
D 203	264P045040	DIODE	1S2471
D 204	264P045040	DIODE	1S2471
D 205	264P045040	DIODE	1S2471
D 206	264P045040	DIODE	1S2471
D 208	264P045040	DIODE	1S2471
D 209	264P045040	DIODE	1S2471
D 210	264P045040	DIODE	1S2471
D 212	264P045040	DIODE	1S2471
D 213	264P045040	DIODE	1S2471
D 216	264P045040	DIODE	1S2471
D 220	264P484070	DIODE	RD6. 2FB2
D 222	264P045040	DIODE	1S2471
D 223	264P045040	DIODE	1S2471
D 224	264P045040	DIODE	1S2471
D 225	264P045040	DIODE	1S2471

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
D 226	264P045040	DIODE	1S2471
D 228	264P483080	DIODE	RD5. 1FB2
D 229	264P045040	DIODE	1S2471
D 231	264P045040	DIODE	1S2471
D 232	264P464040	DIODE	EQA02-10B
D 2001	264P045040	DIODE	1S2471
D 2002	264P285010	DIODE	S5500D
D 2003	264P045040	DIODE	1S2471
D 301	264P285010	DIODE	S5500D
D 302	264P045040	DIODE	1S2471
D 303	264P045040	DIODE	1S2471
D 304	264P502020	DIODE	HZ5BLL
D 305	264P501040	DIODE	HZ3ALL
D 307	264P285010	DIODE	S5500D
D 308	264P501060	DIODE	HZ3CLL [60]
D 309	264P045040	DIODE	1S2471
D 3301	264P045040	DIODE	1S2471
D 3302	264P501050	DIODE	HZ3BLL
D 400	264P464050	DIODE	EQA02-10C
D 401	264P285010	DIODE	S5500D
D 4A00	264P045040	DIODE	1S2471
D 4B01	264P045040	DIODE	1S2471
D 4B02	264P483080	DIODE	RD5. 1FB2
D 4B03	264P483080	DIODE	RD5. 1FB2
D 4B04	264P045040	DIODE	1S2471
D 500	264P533010	DIODE	RS 4FS
D 501	264P358070	DIODE	RU 4AM
D 502	264P146010	DIODE	RC 2
D 503	264P045040	DIODE	1S2471
D 504	264P045040	DIODE	1S2471
D 505	264P102020	DIODE	RU 3B
D 506	264P045040	DIODE	1S2471
D 507	264P244030	DIODE	HZT22-02
D 508	264P045040	DIODE	1S2471
D 509	264P457050	DIODE	RD3. 0EB1
D 510	264P045040	DIODE	1S2471
D 511	264P045040	DIODE	1S2471
D 512	264P101050	DIODE	RM 1B
D 515	264P045040	DIODE	1S2471
D 518	264P489010	DIODE	RD16FB1
D 5A1	264P045040	DIODE	1S2471
D 5000	264P285010	DIODE	S5500D
D 6A5	264P501020	DIODE	HZ2BLL
D 6A6	264P045040	DIODE	1S2471
D 6A7	264P045040	DIODE	1S2471
D 701	264P045040	DIODE	1S2471
D 704	264P045040	DIODE	1S2471
D 705	264P045040	DIODE	1S2471
D 706	264P486020	DIODE	RD8. 2FB3
D 711	264P045040	DIODE	1S2471
D 712	264P045040	DIODE	1S2471
D 713	264P045040	DIODE	1S2471
D 714	264P502020	DIODE	HZ5BLL
D 715	264P502020	DIODE	HZ5BLL [45]
D 7001	264P821010	CHIP DIODE	HSM2836
D 7601	264P463040	DIODE	EQA02-09AB/RD9. 1EB1
D 7602	264P463040	DIODE	EQA02-09AB/RD9. 1EB1
D 7603	264P463040	DIODE	EQA02-09AB/RD9. 1EB1
D 78A0	264P225010	LIGHT EMITTING DIODE	LN25RP [60]
D 78B0	264P189010	LIGHT EMITTING DIODE	TLR124 [45, 50]
D 803	264P045040	DIODE	1S2471
D 804	264P045040	DIODE	1S2471
D 810	264P045040	DIODE	1S2471
D 811	264P045040	DIODE	1S2471
D 820	264P045040	DIODE	1S2471
D 821	264P045040	DIODE	1S2471
D 826	264P483080	DIODE	RD5. 1FB2
D 827	264P483080	DIODE	RD5. 1FB2
D 830	264P045040	DIODE	1S2471
D 831	264P045040	DIODE	1S2471
D 832	264P045040	DIODE	1S2471
D 833	264P045040	DIODE	1S2471
D 834	264P045040	DIODE	1S2471
D 835	264P045040	DIODE	1S2471
D 836	264P045040	DIODE	1S2471
D 837	264P045040	DIODE	1S2471
D 8A0	264P045040	DIODE	1S2471
D 8A1	264P045040	DIODE	1S2471
D 8B0	264P045040	DIODE	1S2471
D 8B1	264P045040	DIODE	1S2471
D 8501	264P045040	DIODE	1S2471
D 8502	264P045040	DIODE	1S2471
D 900	264P535010	DIODE	RBV-608
D 920	264P512020	DIODE	RBV-40C
D 921	264P512020	DIODE	RBV-40C
D 951	264P487080	DIODE	RD12FB2
D 952	264P487080	DIODE	RD12FB2
D 953	264P045040	DIODE	1S2471
D 954	264P045040	DIODE	1S2471
D 960	264P358090	DIODE	RU 4YX
D 962	264P102020	DIODE	RU 3B
D 963	264P102020	DIODE	RU 3B
D 964	264P102020	DIODE	RU 3B
D 9A01	264P578010	DIODE	RG 2A
D 9A02	264P588010	DIODE	FML-G16S
D 9A03	264P358090	DIODE	RU 4YX
D 9A04	264P102040	DIODE	RU 3M
D 9A05	264P102040	DIODE	RU 3M
D 9A06	264P358090	DIODE	RU 4YX
D 9A10	264P521040	DIODE	EU 1A
D 9A11	264P622010	DIODE	AL01Z
D 9A13	264P622010	DIODE	AL01Z
D 9A42	264P102020	DIODE	RU 3B
		FILTERS	
CF101	296P024020	CERAMIC TRAP	TPS4. 5MB7
CF201	299P051050	CERAMIC RESONATOR	CSB500F9
CF301	296P067010	CERAMIC FILTER	SFS4. 5MB2
DL205	296P113010	COMB FILTER	
LC7101	409P771010	LOW PASS FILTER	A285TCIS-1305

[45] : VS – 45VA2CA [50] : VS – 50VA2CA [60] : VS – 60VA2CA

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
SF101	296P096020	SAW FILTER	SAF45MVK56Z
SF301	296P092010	SAW FILTER	SAF41MC70Z
X 701	296P064010	CERAMIC RESONATOR	CSA-4.00MG
		DELAY LINES	
DL200	337P147020	DELAY LINE	
DL201	337P147010	DELAY LINE	
DL202	337P113020	DELAY LINE	100NS
DL203	337P134010	DELAY LINE	SDL-4256
		COILS	
	330P164010	DEFLECTION YOKE COIL	RED/BLUE-CRT
	330P164020	DEFLECTION YOKE COIL	GREEN-CRT
L 101	325C124030	PEAKING COIL	0.22μH-M
L 102	325C124090	PEAKING COIL	0.68μH-M
L 103	325C120010	PEAKING COIL	1.0μH-M
L 104	325C121030	PEAKING COIL	10μH-K
L 105	325C122030	PEAKING COIL	68μH-K
L 106	323P171010	VIF COIL	45.75MHz
L 107	323P111020	VIF COIL	45MHz
L 108	325C122030	PEAKING COIL	68μH-K
L 109	325C120020	PEAKING COIL	1.2μH-M
L 111	325C121030	PEAKING COIL	10μH-K
L 117	325C121030	PEAKING COIL	10μH-K
L 202	325C101030	PEAKING COIL	10μH-K
L 203	325C121090	PEAKING COIL	33μH-K
L 204	325C121030	PEAKING COIL	10μH-K
L 205	325C121030	PEAKING COIL	10μH-K
L 207	325C121000	PEAKING COIL	5.6μH-K
L 212	325C121030	PEAKING COIL	10μH-K
L 213	325C161000	PEAKING COIL	5.6μH-K
L 220	325C122040	PEAKING COIL	82μH-K
L 2N0	325C162090	PEAKING COIL	220μH-K
L 2N1	325C162090	PEAKING COIL	220μH-K
L 2002	325C121030	PEAKING COIL	10μH-K
L 2003	325C121030	PEAKING COIL	10μH-K
L 2004	325C163070	PEAKING COIL	1000μH-K
L 2006	325C121030	PEAKING COIL	10μH-K
L 2007	325C121030	PEAKING COIL	10μH-K
L 2009	321C031040	RF COIL	10μH-K
L 303	327P072010	SIF COIL	TKACS-27071BY
L 3A1	325C122030	PEAKING COIL	68μH-K
L 3A01	325C121030	PEAKING COIL	10μH-K
L 4A1	321C031090	RF COIL	33μH-K
L 4A2	321C031090	RF COIL	33μH-K
L 4B10	351P068010	PEAKING COIL	SB4-680-122
L 500	321C030070	RF COIL	3.3μH-K
L 501	411P001010	FERRITE LEAD	
L 502	411P001010	FERRITE LEAD	
L 503	333P025040	H-LIN.COIL	
L 505	409P565020	FILTER COIL	
L 506	409P691010	FILTER COIL	
L 6A0	325C107020	PEAKING COIL	56μH-J
L 6A1	325C107020	PEAKING COIL	56μH-J
L 6A2	325C107020	PEAKING COIL	56μH-J

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
L 6A3	325C161060	PEAKING COIL	18μH-K
L 6A4	325C161060	PEAKING COIL	18μH-K
L 6A5	325C161060	PEAKING COIL	18μH-K
L 701	325C121030	PEAKING COIL	10μH-K
L 702	325C121030	PEAKING COIL	10μH-K
L 703	325C121060	PEAKING COIL	18μH-K
L 707	325C121030	PEAKING COIL	10μH-K
L 708	321C010040	RF COIL	1000μH-J
L 711	325C121030	PEAKING COIL	10μH-K
L 712	325C121030	PEAKING COIL	10μH-K
L 7000	321C031040	RF COIL	10μH-K
L 7001	325C107050	PEAKING COIL	100μH-J
L 7002	325C141030	CHIP COIL	10μH-K
L 7003	325C141030	CHIP COIL	10μH-K
L 7102	325C141030	CHIP COIL	10μH-K
L 7103	325C141030	CHIP COIL	10μH-K
L 7601	325C121030	PEAKING COIL	10μH-K
L 7602	325C121030	PEAKING COIL	10μH-K
L 7603	325C121030	PEAKING COIL	10μH-K
L 77A1	325C121030	PEAKING COIL	10μH-K
L 7800	325C121030	PEAKING COIL	10μH-K
L 801	321C031040	RF COIL	10μH-K
L 805	321C031040	RF COIL	10μH-K
L 807	351P068030	PEAKING COIL	SBC-03
L 808	351P068030	PEAKING COIL	SBC-03
L 809	351P068030	PEAKING COIL	SBC-03
L 810	351P068030	PEAKING COIL	SBC-03
L 811	321C031040	RF COIL	10μH-K
L 812	321C031040	RF COIL	10μH-K
L 814	321C031090	RF COIL	33μH-K
L 815	321C031090	RF COIL	33μH-K
L 900	351P064030	LINE FILTER	SE26TL-40030A
L 9A01	411D009020	FERRITE CORE FILTER	
L 9A02	411P001010	FERRITE LEAD	
L 9A03	351P070010	FILTER COIL	560μH-K
L 9A10	411P001010	FERRITE LEAD	
L 9A12	411P001010	FERRITE LEAD	
LC7102	409P736010	COIL	CLOCK-ADJ 11614
LF7000	409P696020	EMI FILTER	BLM41A01
LF7001	409P402030	EMI FILTER	DSS306-55FZ103N100
LF7002	409P402020	EMI FILTER	DSS306-55B102M100
LF7003	409P402020	EMI FILTER	DSS306-55B102M100
T 101	320P026030	TRAP COIL	
		TRANSFORMERS	
	350P581010	POWER	
T 201	349P159020	CHROMA-BP	
T 4B00	349P192010	PCC	TOP-BOTTOM
T 500	336P009030	H.DRIVE	
T 501	334P191010	FLYBACK	
T 5000	349P122080	PCC	
T 9A0	350P580010	POWER	

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
		VARIABLE RESISTORS	
VR102	127C080040	VR-SEMIFIXED	1/5W B1KΩ-M
VR1A1	127C080060	VR-SEMIFIXED	1/5W B3KΩ-M
VR204	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR205	127C080040	VR-SEMIFIXED	1/5W B1KΩ-M
VR3001	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR3002	127C080090	VR-SEMIFIXED	1/5W B20KΩ-M
VR3003	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR3004	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR3005	127C081010	VR-SEMIFIXED	1/5W B50KΩ-M
VR400	127C090080	VR-SEMIFIXED	1/5W B10KΩ-M
VR401	127C090090	VR-SEMIFIXED	1/5W B20KΩ-M
VR4A00	127C190080	VR-SEMIFIXED	1/5W B10KΩ-M
VR4A01	127C190080	VR-SEMIFIXED	1/5W B10KΩ-M
VR4A02	127C190080	VR-SEMIFIXED	1/5W B10KΩ-M
VR5A0	127C280030	VR-SEMIFIXED	1/10W B500Ω-N
VR5A2	127C280060	VR-SEMIFIXED	1/10W B3KΩ-N
VR5A3	127C280060	VR-SEMIFIXED	1/10W B3KΩ-N
VR5000	127C280040	VR-SEMIFIXED	1/10W B1KΩ-N
VR6A0	127C080010	VR-SEMIFIXED	1/5W B200Ω-M
VR6A1	127C080010	VR-SEMIFIXED	1/5W B200Ω-M
VR6A2	127C091040	VR-SEMIFIXED	1/5W B300KΩ-M
VR6A3	127C091040	VR-SEMIFIXED	1/5W B300KΩ-M
VR6A4	127C091040	VR-SEMIFIXED	1/5W B300KΩ-M
VR6A5	129D074010	VR-SEMIFIXED	0.6W-B4M-8S-M
VR6A6	129D074010	VR-SEMIFIXED	0.6W-B4M-8S-M
VR6A7	129D074010	VR-SEMIFIXED	0.6W-B4M-8S-M
VR7001	127C090030	VR-SEMIFIXED	1/5W B500Ω-M
VR7002	127C090030	VR-SEMIFIXED	1/5W B500Ω-M
VR8A0	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A1	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A2	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A3	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A4	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A5	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A6	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A7	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A8	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A9	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B0	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B1	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B2	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B3	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B4	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B5	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B6	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8B7	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8B8	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8B9	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C0	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C1	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C2	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C3	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C4	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C5	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C6	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C7	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C8	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C9	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8D0	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8D1	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8E0	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8E1	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8E2	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8E3	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8501	127C090080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8800	120C330090	VR-PCB	1/20W B5KΩ-20N
VR8801	120C330090	VR-PCB	1/20W B5KΩ-20N
VR8802	120C330090	VR-PCB	1/20W B5KΩ-20N
		RESISTORS	
R 2F1	103P532070	NETWORK	1/8W 1.5KΩ-JX3
R 2Z9	103P553010	NETWORK	1/8W 3.3KΩ-JX5
R 311	103P378040	FUSE	1/4W 2.2Ω-J
R 312	103P378040	FUSE	1/4W 2.2Ω-J
R 4B52	103P397090	FUSE	1/2W 0.82Ω-J
R 4B53	103P397090	FUSE	1/2W 0.82Ω-J
R 503	109D074030	CEMENT METAL	5W 3.9KΩ-K/J
R 508	103P438050	FUSE METAL	2W 2.7Ω-K/J
R 509	103P391030	FUSE	1/2W 100Ω-J
R 510	103P398010	FUSE	1/2W 1.2Ω-J
R 5008	103P398000	FUSE	1/2W 1.0Ω-J
R 754	103P603070	NETWORK	1/8W 10KΩ-JX10
R 7C0	103P532050	NETWORK	1/8W 1KΩ-JX3
R 7001	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7002	103P401050	CHIP RESISTOR	1/10W 150Ω-J
R 7003	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7004	103P401050	CHIP RESISTOR	1/10W 150Ω-J
R 7007	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7008	103P473060	CHIP RESISTOR	1/10W 3KΩ-F
R 7009	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7010	103P402060	CHIP RESISTOR	1/10W 1.2KΩ-J
R 7011	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J
R 7012	103P403020	CHIP RESISTOR	1/10W 3.9KΩ-J
R 7013	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7014	103P402060	CHIP RESISTOR	1/10W 1.2KΩ-J
R 7015	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J
R 7016	103P473000	CHIP RESISTOR	1/10W 1.6KΩ-F
R 7019	103P403050	CHIP RESISTOR	1/10W 6.8KΩ-J
R 7020	103P403090	CHIP RESISTOR	1/10W 15KΩ-J
R 7021	103P403090	CHIP RESISTOR	1/10W 15KΩ-J
R 7022	103P403050	CHIP RESISTOR	1/10W 6.8KΩ-J
R 7023	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7024	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 7025	103P404020	CHIP RESISTOR	1/10W 27KΩ-J
R 7026	103P404020	CHIP RESISTOR	1/10W 27KΩ-J
R 7027	103P401050	CHIP RESISTOR	1/10W 150Ω-J
R 7028	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7029	103P405070	CHIP RESISTOR	1/10W 470KΩ-J

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 7031	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7034	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7041	103P473090	CHIP RESISTOR	1/10W 3.9KΩ-F
R 7042	103P473090	CHIP RESISTOR	1/10W 3.9KΩ-F
R 7043	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7044	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7045	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7046	103P474090	CHIP RESISTOR	1/10W 10KΩ-F
R 7047	103P473030	CHIP RESISTOR	1/10W 2.2KΩ-F
R 7048	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7049	103P403030	CHIP RESISTOR	1/10W 4.7KΩ-J
R 7060	103P475040	CHIP RESISTOR	1/10W 16KΩ-F
R 7061	103P475040	CHIP RESISTOR	1/10W 16KΩ-F
R 7062	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7063	103P475090	CHIP RESISTOR	1/10W 27KΩ-F
R 7064	103P475040	CHIP RESISTOR	1/10W 16KΩ-F
R 7065	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7066	103P475040	CHIP RESISTOR	1/10W 16KΩ-F
R 7067	103P475040	CHIP RESISTOR	1/10W 16KΩ-F
R 7068	103P471060	CHIP RESISTOR	1/10W 430Ω-F
R 7070	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7071	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7072	103P402010	CHIP RESISTOR	1/10W 470Ω-J
R 7073	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7074	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7075	103P402010	CHIP RESISTOR	1/10W 470Ω-J
R 7080	103P472060	CHIP RESISTOR	1/10W 1.1KΩ-F
R 7081	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 7082	103P474030	CHIP RESISTOR	1/10W 5.6KΩ-F
R 7083	103P472000	CHIP RESISTOR	1/10W 620Ω-F
R 7084	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7085	103P476010	CHIP RESISTOR	1/10W 33KΩ-F
R 7086	103P476060	CHIP METAL	1/10W 51KΩ-F
R 7087	103P401070	CHIP RESISTOR	1/10W 220Ω-J
R 7088	103P401070	CHIP RESISTOR	1/10W 220Ω-J
R 7100	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7102	103P403070	CHIP RESISTOR	1/10W 10KΩ-J
R 7103	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J
R 7104	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J
R 7105	103P403050	CHIP RESISTOR	1/10W 6.8KΩ-J
R 7106	103P403020	CHIP RESISTOR	1/10W 3.9KΩ-J
R 7107	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 7108	103P403020	CHIP RESISTOR	1/10W 3.9KΩ-J
R 7109	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 7111	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 7112	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 7123	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7124	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7125	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7126	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7127	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7128	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7129	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7130	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7131	103P409050	CHIP RESISTOR	1/10W 0Ω

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 7134	103P409050	CHIP RESISTOR	1/10W 0Ω [50, 60]
R 7150	103P479000	CHIP METAL	1/10W 510KΩ-F
R 901	109D071020	CEMENT WIRE	15W 2.2Ω-K
R 9A15	102P106080	WIRE	2W 0.1Ω-J
R 9A16	102P106080	WIRE	2W 0.1Ω-J
		CAPACITORS AND TRIMMERS	
C 408	189P071050	C-M-PLASTIC-PP	200V 0.33μF-J
C 4B30	189P071090	C-M-PLASTIC-PP	200V 0.27μF-J
C 510	189P071010	C-M-PLASTIC-PP	200V 0.56μF-J
C 511	189P071070	C-M-PLASTIC-PP	200V 0.39μF-J
C 512	189P071080	C-M-PLASTIC-PP	200V 0.47μF-J
C 513	189P071010	C-M-PLASTIC-PP	200V 0.56μF-J
C 515	189P072020	C-M-POLYESTER	1600V 0.1μF-K
C 520	189P071040	C-M-PLASTIC-PP	200V 0.12μF-J
C 532	189P071050	C-M-PLASTIC-PP	200V 0.33μF-J
C 716	149D811030	CR-MULTIPLE	50V 10000PFX4
C 7001	181P504090	CHIP CAPACITOR	35V 4.7μF-M
C 7002	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7003	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7004	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7006	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7007	181P522030	CHIP ELECTROLYTIC-C	16V 10μF-M
C 7009	154P324000	CHIP CAPACITOR	SL50V 150pF-J
C 7010	141P137060	CHIP CAPACITOR	B50V 0.033μF-K
C 7011	181P506020	CHIP CAPACITOR	50V 2.2μF-M
C 7012	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7014	181P522060	CHIP ELECTROLYTIC-C	16V 47μF-M
C 7015	181P500010	CHIP CAPACITOR	6.3V 22μF-M
C 7016	181P526010	CHIP CAPACITOR	50V 1μF-M
C 7017	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7018	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7020	181P526020	CHIP ELECTROLYTIC-C	04W 50V 2.2μF-M
C 7021	181P522030	CHIP ELECTROLYTIC-C	16V 10μF-M
C 7022	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7023	181P502030	CHIP CAPACITOR	16V 10μF-M
C 7024	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7025	154P322000	CHIP CAPACITOR	SL50V 22pF-J
C 7026	181P504090	CHIP CAPACITOR	35V 4.7μF-M
C 7027	181P506020	CHIP CAPACITOR	50V 2.2μF-M
C 7028	181P506000	CHIP CAPACITOR	50V 0.47μF-M
C 7029	181P506000	CHIP CAPACITOR	50V 0.47μF-M
C 7030	141P131010	CHIP CAPACITOR	B50V 1500pF-K
C 7031	181P528030	CHIP ELECTROLYTIC-C	50V 0.22μF-M
C 7032	181P520040	CHIP ELECTROLYTIC-C	6.3V 100μF-M
C 7033	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7034	181P528030	CHIP ELECTROLYTIC-C	50V 0.22μF-M
C 7035	141P130090	CHIP CAPACITOR	B50V 1000pF-K
C 7036	181P524090	CHIP CAPACITOR	35V 4.7μF-M
C 7037	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7038	181P500010	CHIP CAPACITOR	6.3V 22μF-M
C 7039	154P322020	CHIP CAPACITOR	SL50V 27pF-J
C 7041	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7042	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7046	154P332090	CHIP CAPACITOR	CH50V 56pF-J

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
C 7047	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7050	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7051	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7052	181P506010	CHIP CAPACITOR	04W 50V 1μF-M
C 7053	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7054	154P324080	CHIP CAPACITOR	SL50V 330pF-J
C 7055	154P324080	CHIP CAPACITOR	SL50V 330pF-J
C 7060	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7101	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7102	154P323060	CHIP CAPACITOR	SL50V 100pF-J
C 7103	181P502030	CHIP CAPACITOR	16V 10μF-M
C 7104	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7105	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7106	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7107	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7108	181P500010	CHIP CAPACITOR	6.3V 22μF-M
C 7109	181P500010	CHIP CAPACITOR	6.3V 22μF-M
C 7110	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7111	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7112	141P137040	CHIP CAPACITOR	B25V 0.022μF-K
C 7113	141P137040	CHIP CAPACITOR	B25V 0.022μF-K
C 7114	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7115	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7116	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7117	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7118	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7119	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7120	181P504090	CHIP CAPACITOR	35V 4.7μF-M
C 7121	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7122	181P500010	CHIP CAPACITOR	6.3V 22μF-M
C 7123	181P500010	CHIP CAPACITOR	6.3V 22μF-M
C 7124	181P500010	CHIP CAPACITOR	6.3V 22μF-M
C 7126	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7127	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7128	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 7129	181P520040	CHIP ELECTROLYTIC-C	6.3V 100μF-M
C 7131	154P324020	CHIP CAPACITOR	SL50V 180pF-J [50, 60]
C 909	185D063080	ELECTROLYTIC-C	H200V 820μF-M 105C
C 923	185D057020	ELECTROLYTIC-C	H50V 6800μF-M
C 927	185D054060	ELECTROLYTIC-C	H35V 4700μF-M
C 9A08	185D063020	ELECTROLYTIC-C	H180V 470μF-M 105C
C 9A20	185D063030	ELECTROLYTIC-C	H180V 820μF-M 105C
VC731	202P109040	TRIMMER CAPACITOR	7.3pF-45pF
		SWITCHES	
S 7800	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7801	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7802	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7803	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7804	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7805	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7806	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7807	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7808	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7809	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7810	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7811	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7812	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7813	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7814	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7815	432P100030	KEY BOARD SWITCH	1-1 H=7
		MISCELLANEOUS	
	462P004020	A-MAGNET ASSY	
	462P035010	MAGNET ASSY	RED/BLUE-CRT
	462P035020	MAGNET ASSY	GREEN-CRT
	462P035030	MAGNET ASSY	
	453B011040	ANODE CAP	
	767D038020	MIRROR	[45]
	767D028070	MIRROR	[50]
	767D039010	MIRROR	[60]
	449C026020	CRT SOCKET	
AG6A0	224D019090	AIR GAP	1.5KV
AG6A1	224D019090	AIR GAP	1.5KV
AG6A2	224D019090	AIR GAP	1.5KV
AG6A3	224D019090	AIR GAP	1.5KV
AG6A4	224D019090	AIR GAP	1.5KV
AG6A5	224D019090	AIR GAP	1.5KV
AG6A6	224D019040	AIR GAP	2KV
AG6A7	224D019040	AIR GAP	2KV
AG6A8	224D019040	AIR GAP	2KV
F 900	283D060020	FUSE	S5A
F 901	283D038070	FUSE	S4A
F 920	283D038060	FUSE	S2A
F 9A0	283D038070	FUSE	S4A
K 3Z1	287P073010	POWER RELAY	VB-12TKU-526-UL3
K 3Z2	287P060010	POWER RELAY	DH12D2-0S(M)
K 900	287P049020	POWER RELAY	DG12D1-0(M)-L
K 901	287P049020	POWER RELAY	DG12D1-0(M)-L
PC9A0	268P033010	PHOTO COUPLER	ON3161-R
PJ3A01	440B095010	TERMINAL JACK	[45]
PJ3A01	440B095030	TERMINAL BOARD	PINX13+DIN [50, 60]
PJ3A02	440C189010	SPEAKER TERMINAL	(+)X2&(-)X2
PJ79A0	440C181010	JACK BOARD	PINX3 & DINX1
RT500	265P090050	THERMISTOR	NTH5D102KA
RT501	265P090050	THERMISTOR	NTH5D102KA
RT502	265P090050	THERMISTOR	NTH5D102KA
RT5D0	265P090050	THERMISTOR	NTH5D102KA
RV900	265P086010	VARISTOR	SNR-271KD10
SP391	480P655010	SPEAKER	181P05M6910
SP392	480P233010	SPEAKER	E040PX474M69
SP393	480P655010	SPEAKER	181P05M6910
SP394	480P233010	SPEAKER	E040PX474M69
TU101	295P266040	TUNER	ENV568D6G3
X 201	285P029050	CRYSTAL RESONATOR	3.5795MHz
X 202	285P015010	CRYSTAL RESONATOR	3.57955MHz
X 7001	285P066010	CRYSTAL RESONATOR	3.5795MHz
Z 7706	939P296090	PREAMP UNIT	HC-437M
Z 9A01	283P030090	FUSE	SSFR 4A

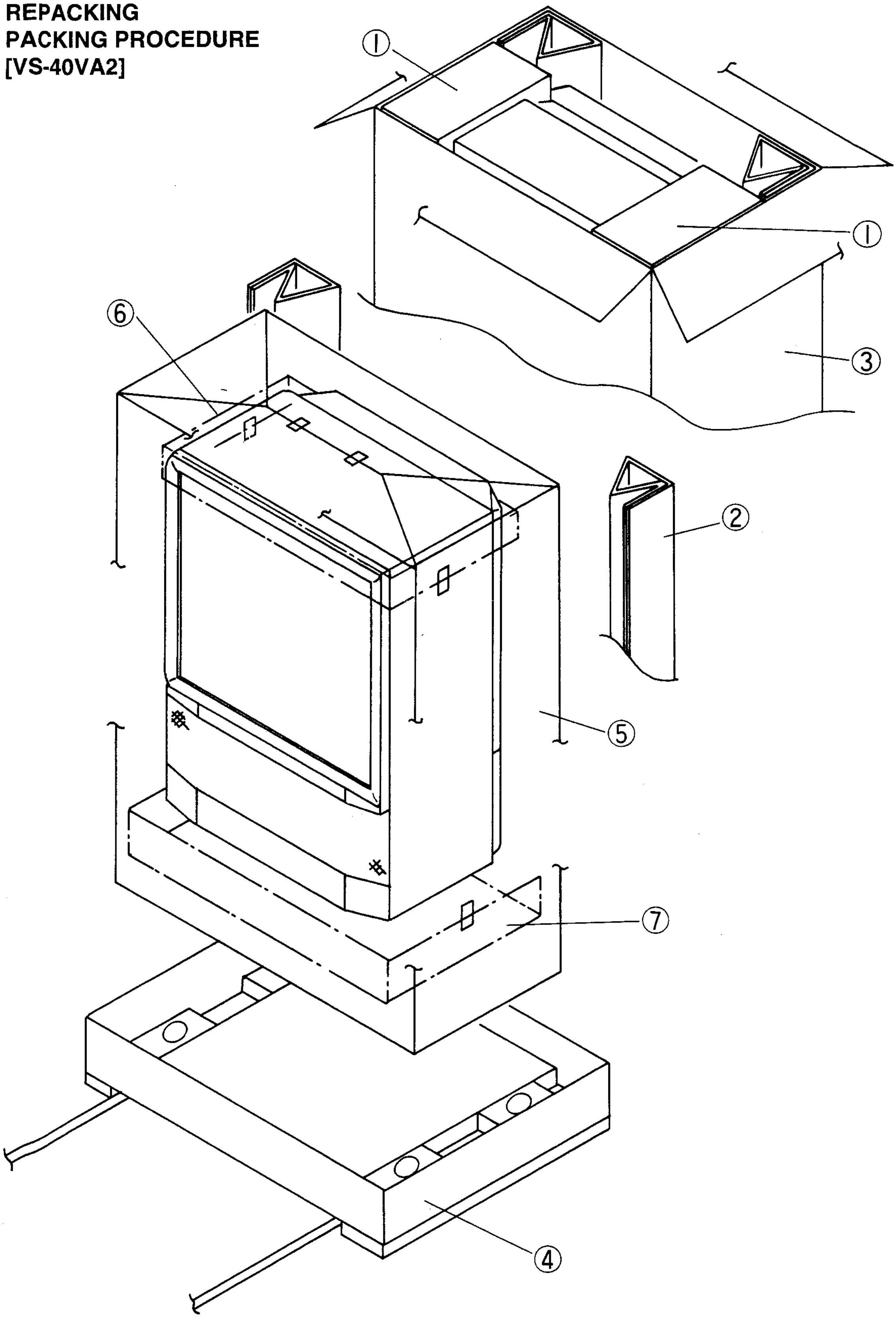
[45] : VS – 45VA2CA [50] : VS – 50VA2CA [60] : VS – 60VA2CA

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
Z 9A02	283P030090	FUSE	SSFR 4A	
		PRINTED CIRCUIT BOARD ASSY'S		
	935D156001	CONTROL PCB ASSY		
	935C438002	CONV PCB ASSY		[45]
	935C438001	CONV PCB ASSY		[50]
	935C438004	CONV PCB ASSY		[60]
	935C440001	CRT PCB ASSY		
	935D157001	DISPLAY PCB ASSY		[45, 50]
	935D167001	DISPLAY PCB ASSY		[60]
	935D154001	FRONT PCB ASSY		
	935D153001	FS PCB ASSY		
	935C437004	MAIN PCB ASSY		[45]
	935C437003	MAIN PCB ASSY		[50]
	935C437007	MAIN PCB ASSY		[60]
	935C442002	PCC PCB ASSY		[45]
	935C442001	PCC PCB ASSY		[50]
	935C442004	PCC PCB ASSY		[60]
	930B552003	PIP PCB ASSY		
	935C439002	POWER SUB PCB ASSY		
	935D155001	PREAMP PCB ASSY		
	935D162002	SIDE PCC PCB ASSY		[45]
	935D162001	SIDE PCC PCB ASSY		[50]
	935D162004	SIDE PCC PCB ASSY		[60]
	935C441004	SIGNAL PCB ASSY		[45]
	935C441003	SIGNAL PCB ASSY		[50, 60]
	935D152002	TERMINAL PCB ASSY		[45]
	935D152001	TERMINAL PCB ASSY		[50, 60]
		MECHANICAL PARTS		
	669D171080	SCREW	M4X25 0.7	[45, 50]
	669D204060	SCREW	M4X16	[45, 60]
	669D130050	SCREW	4X20 BLACK	[45, 50]
	669D140070	SCREW	4X16	[60]
	669D220030	SCREW	3X10 46LA005	
	669D220040	SCREW	3X12 46LA005	
	669D220060	SCREW	3X16 46LA005	
	669D221040	SCREW	4X12 46LA005	
	669D221080	SCREW	4X25 46LA005	
	669D220020	SCREW	3X8 46LA005	[50, 60]
	669D221060	SCREW	4X16 46LA005	[60]
	669D212010	SCREW	3X12	
	669D222040	SCREW	3X12	
	683D010050	WASHER	104512	
		COSMETIC PARTS		
	246C160010	AC POWER CORD		
	975D045090	CABINET ASSY		[45]
	975D045080	CABINET ASSY		[50]
	975D045070	CABINET ASSY		[60]
	702B825090	FRONT PANEL		[60]
	975B064019	FRAME SCREEN ASSY		[45]
	975B064017	FRAME SCREEN ASSY		[50]
	975B071010	FRAME SCREEN ASSY		[60]
	702C949030	TRAY ASSY		[45, 50]
	700C148020	BACK COVER		[45]
	700C147090	BACK COVER		[50]
	700C148010	BACK COVER		[45]
	700C147080	BACK COVER		[50]
	700C147020	BACK COVER		[60]
	702C991010	SIDE PANEL		[60]
	702C991020	SIDE PANEL		[60]
	700C134090	BACK BOARD		[60]
	740B153010	BAFFLE BOARD ASSY		[45]
	740B152010	BAFFLE BOARD ASSY		[50]
	975C125011	BAFFLE BOARD ASSY		[60]
	702A355020	TERMINAL BOARD		[45]
	702A355010	TERMINAL BOARD		[50, 60]
	589D042030	CASTER		[45, 50]
	589C017010	CASTER		[60]
	540C015010	LEAD CLAMPER		
	641D173010	CLIP	AC-POWER-CORDE	
	621D840010	SCREEN CLIP	UP/DOWN	[60]
	621D840070	SCREEN CLIP	SIDE-L/R	[60]
	761C273010	DOOR CATCH		[45, 50]
	761C437010	DOOR CATCH		[60]
	702B712030	CONTROL DOOR ASSY		[45]
	702B737010	CONTROL DOOR ASSY		[50]
	702C837000	CONTROL DOOR ASSY		[60]
	771D090010	FOOT	(S)	[45, 50]
	491P004050	FRESNEL LENS		[45]
	491P009020	FRESNEL LENS		[50]
	491P016030	FRESNEL LENS		[60]
	702B826010	FRONT UNIT		[60]
	761A093010	SPEAKER GRILLE		[45]
	761A092010	SPEAKER GRILLE		[50]
	740B159010	SPEAKER GRILLE		[60]
	734D417020	PUSH KNOB		
	491P006090	LENTICULAR SCREEN		[45]
	491P010080	LENTICULAR SCREEN		[50]
	491P015050	LENTICULAR SCREEN		[60]
	440C176080	TERMINAL BOARD	ANTENNA	
		PACKING PARTS AND ACCESSORY		
1	802B392050	PACKING CASE	SLEEVE	[45]
1	802B390060	PACKING CASE	SLEEVE	[50]
1	803B695010	CUSHION TOP	L+R	[60]
2	803B692010	CUSHION TOP		[45, 50]
2	802B315020	PACKING CASE	BOTTOM	[60]
3	802B392030	PACKING CASE	REAR-CORNER	[45]
3	802B390030	PACKING CASE	REAR-CORNER	[50]
3	802B315080	PACKING CASE	SLEEVE	[60]
4	802B392020	PACKING CASE	BOTTOM	[45]
4	802B390020	PACKING CASE	BOTTOM	[50]
4	802B315070	PACKING CASE	SIDE-L	[60]
5	831C060040	PACKING BAG	1900X2200X2.0	[45, 50]
5	802B315060	PACKING CASE	SIDE-R	[60]
6	829C045020	PACKING SHEET		[45, 50]
6	831C060060	PACKING BAG	2500X2300X2.0	[60]
7	829D126090	PACKING SHEET	2600X600X.5	[45, 50]

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
7	829C047010	PACKING SHEET	TOP [60]
8	802B390040	PACKING CASE	FRONT-CORNER [50]
8	829D126030	PACKING SHEET	BOTTOM [60]
	871D159030	INSTRUCTION BOOK	
	871D159040	INSTRUCTION BOOK	[45]
	871D159050	INSTRUCTION BOOK	[60]
	939P434030	REMOTE HAND UNIT	
		OTHER CRITICAL COMPONENTS	
C 506	172P170090	C-M-PLASTIC-PP	1600V 4700pF-J
C 507	172P171000	C-M-PLASTIC-PP	1600V 5600pF-J
C 508	172P085060	C-PLASTIC-PP	400V 0.033μF-J
C 509	189P177020	C-M-PLASTIC-PP	400V 0.015μF-J
C 900	189P033050	C-M-MF/PP-AC	AC125V/250V 0.1μF-M
C 901	189P136080	C-CERAMIC-AC	B VA1 2200pF-M
C 902	189P136080	C-CERAMIC-AC	B VA1 2200pF-M
C 903	189P033040	C-M-MF/PP-AC	AC125V/250V 0.047μF-M
C 904	189P136080	C-CERAMIC-AC	B VA1 2200pF-M
C 905	189P136080	C-CERAMIC-AC	B VA1 2200pF-M
C 906	189P136080	C-CERAMIC-AC	B VA1 2200pF-M
C 907	189P136080	C-CERAMIC-AC	B VA1 2200pF-M
C 9A30	189P033070	C-M-MF/PP-AC	AC125V/250V 4700pF-M
C 9A31	189P033070	C-M-MF/PP-AC	AC125V/250V 4700pF-M
R 900	109D031080	R-COMPOSITION	1/2W 820KΩ-K

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION

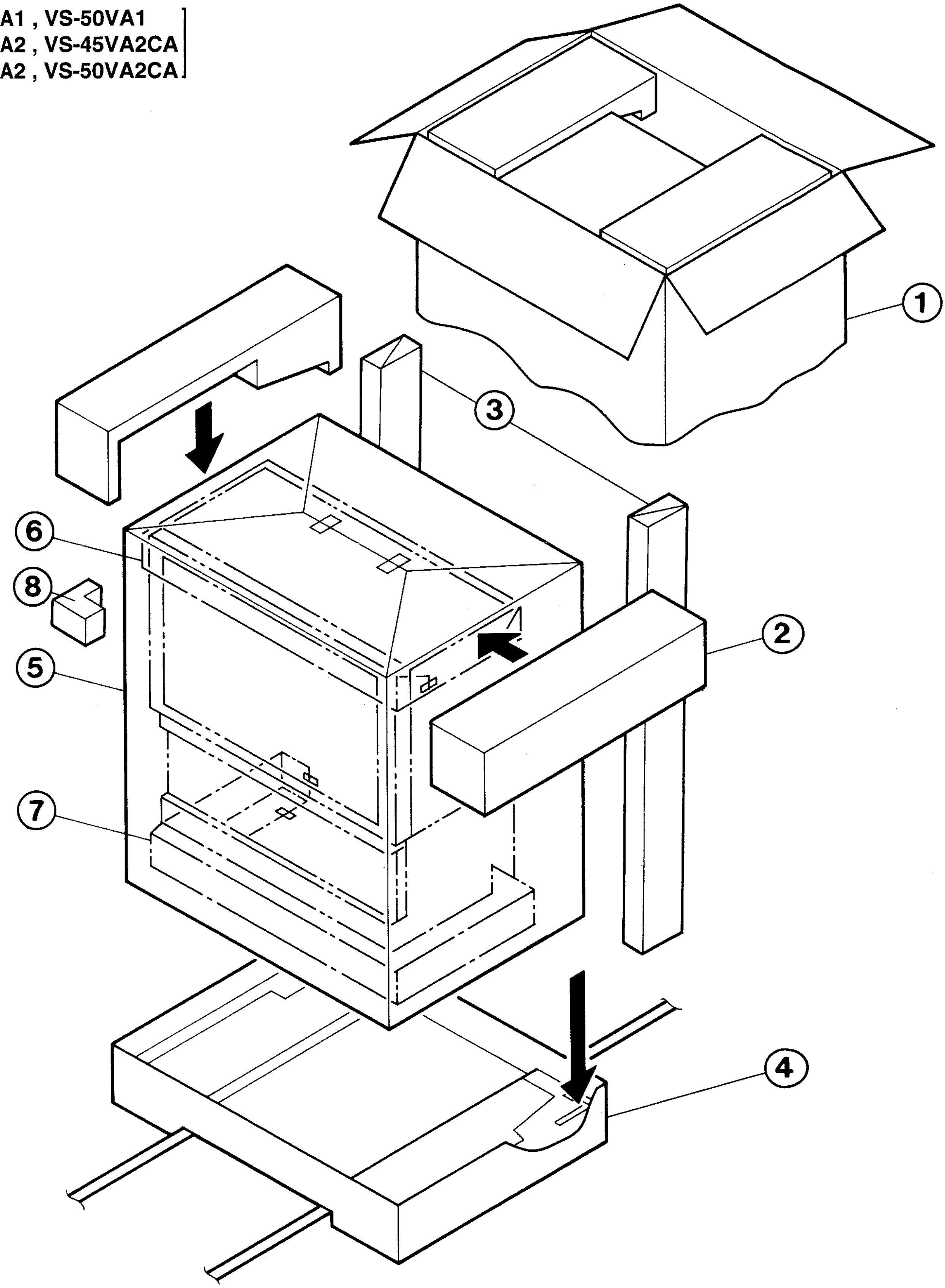
REPACKING
PACKING PROCEDURE
[VS-40VA2]



REPACKING

PACKING PROCEDURE

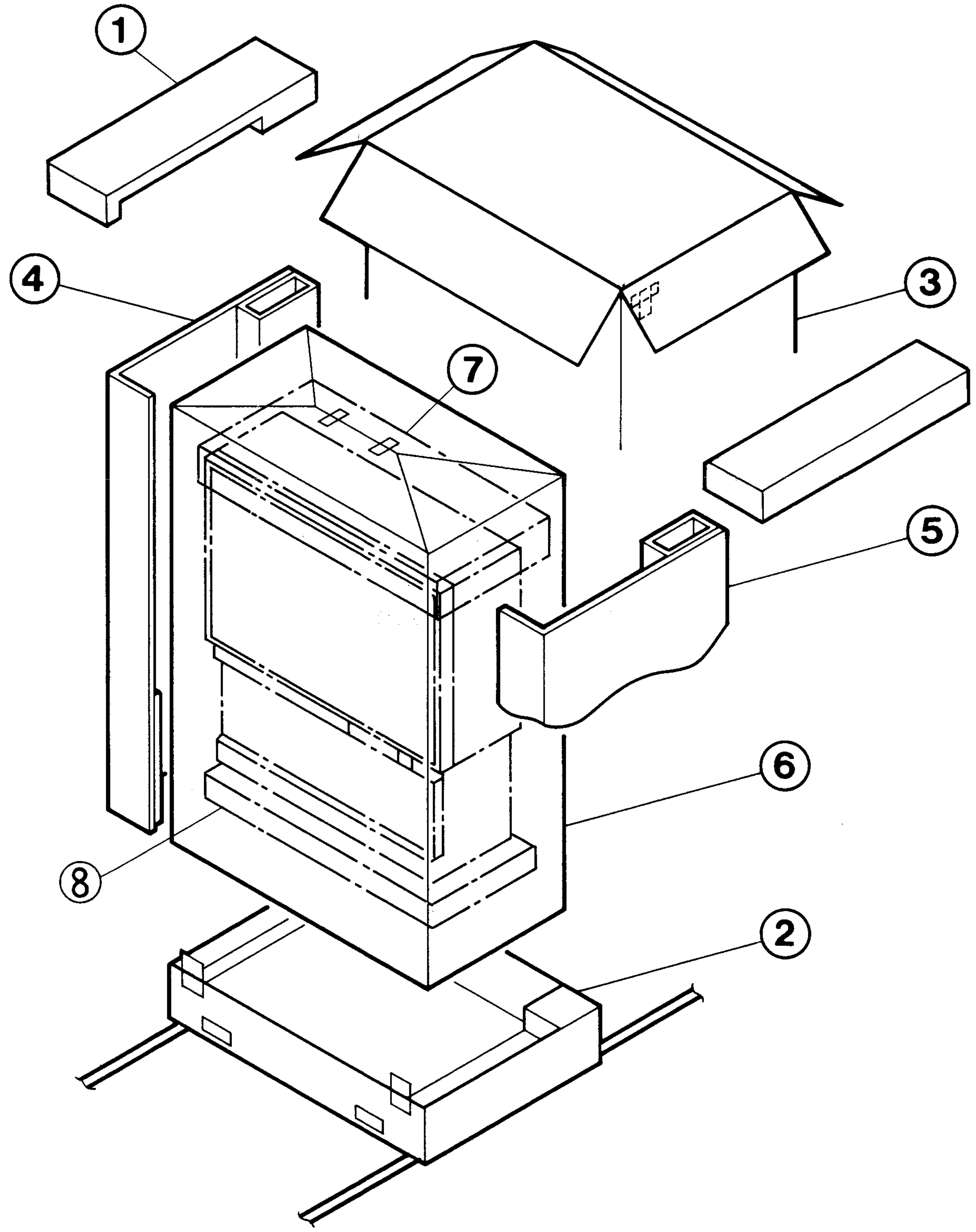
[VS-40VA1 , VS-50VA1
VS-45VA2 , VS-45VA2CA
VS-50VA2 , VS-50VA2CA]



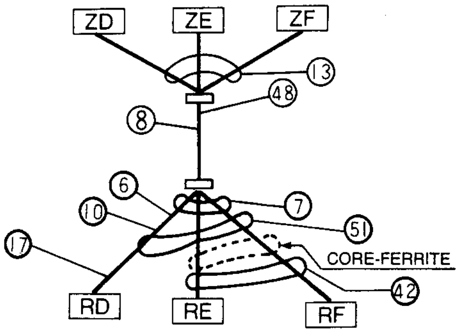
REPACKING

PACKING PROCEDURE

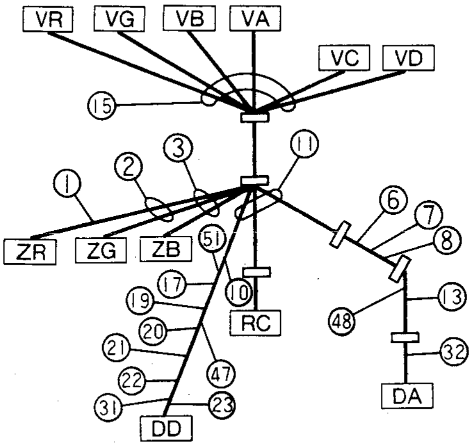
[VS-60VA2
VS-60VA2CA]



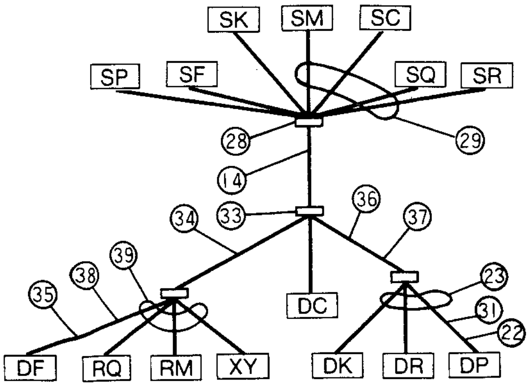
[MEMO]


ZD
ZE
ZF
⑬
㊽
⑧
⑥
⑦
⑩
(51)
⑰
CORE-FERRITE
㊷
RD
RE
RF

W-H①
WIRE HARNESS


VR
VG
VB
VA
VC
VD
⑮
⑪
③
②
①
⑥
⑦
⑧
ZR
ZG
ZB
(51)
⑰
⑩
⑲
⑳
RC
㊽
⑬
㉜
㉑
㊼
㉒
㉛
㉓
DD
DA

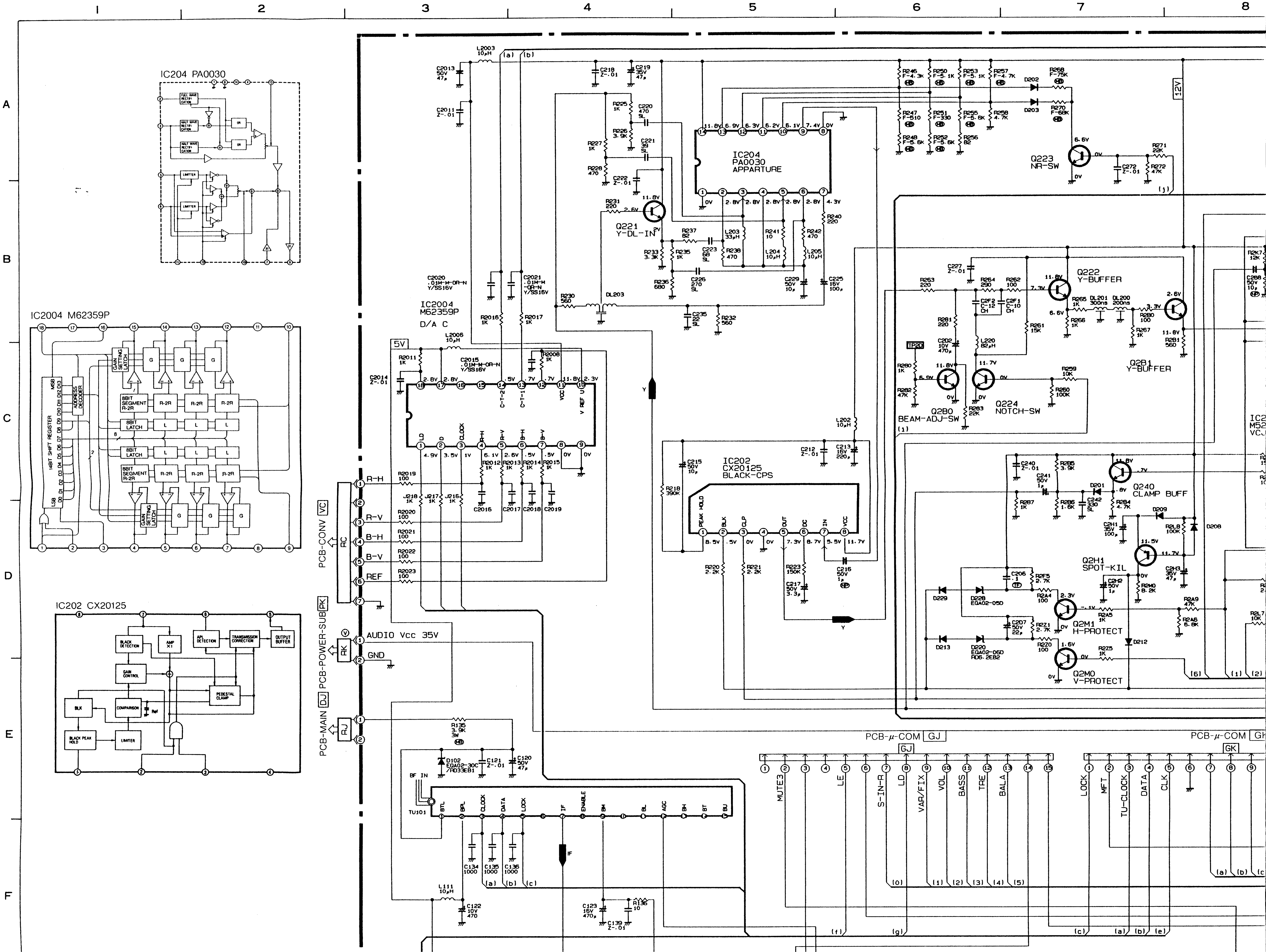
W-H②
WIRE HARNESS

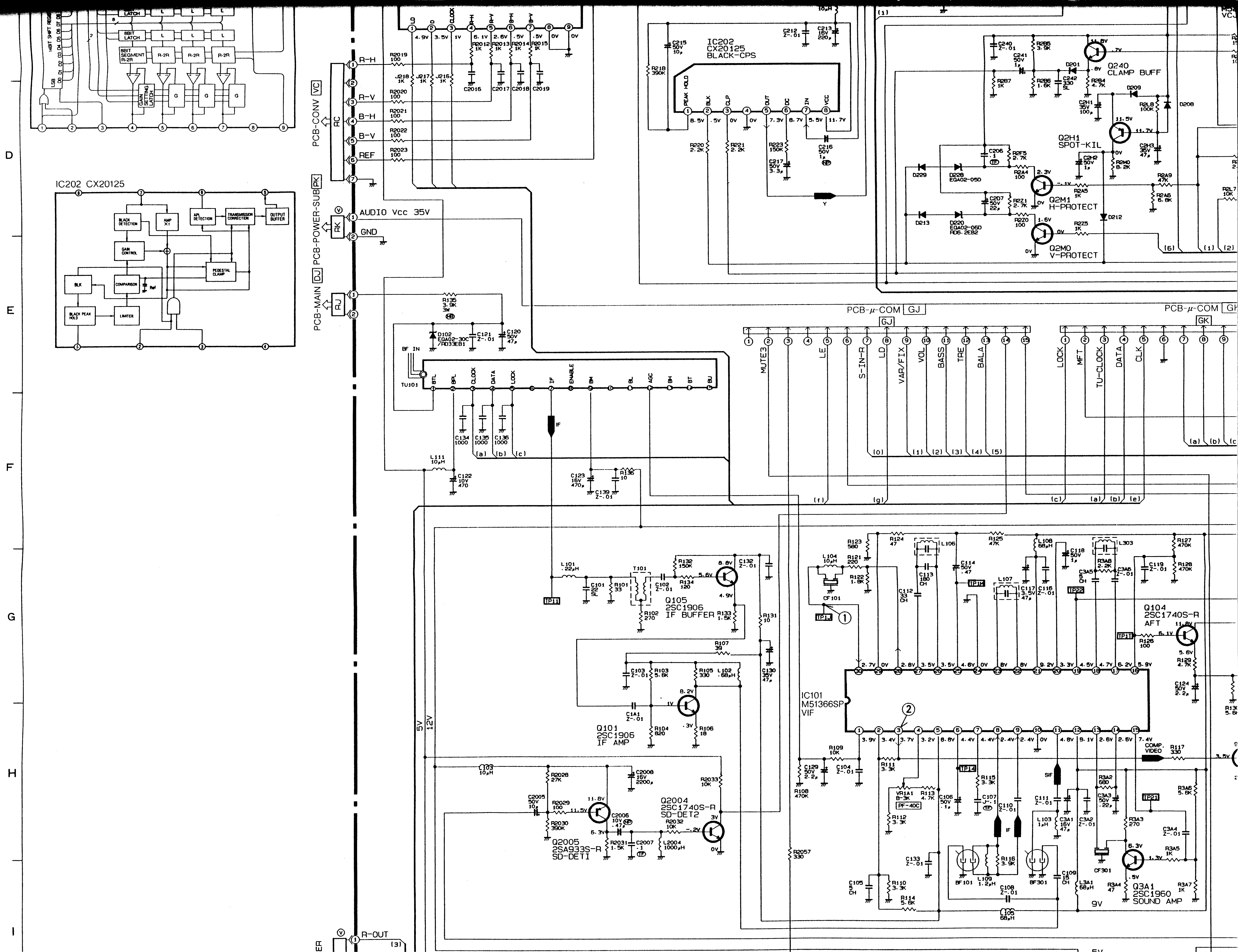

SK
SM
SC
SP
SF
SQ
SR
㉘
㉙
⑭
㉞
㉝
㊱
㊲
㊴
㊳
㉟
㉓
㉛
㉒
DC
DF
RQ
RM
XY
DK
DR
DP

W-H③
WIRE HARNESS

CLAMPER LIST FOR CONNECTOR LEAD

CONNECTOR LEAD		CLAMPER No.	CONNECTOR LEAD
W-H ①	RD	17-51-10-6-7-8-48-13	ZE (to FD)
	RE	42-CORE-FERRITE-51-7-8-48-13	ZE (to FE)
	RF	42-CORE-FERRITE-51-7-8-48-13	ZF (to CF)
W-H ②	VA	15-11-6-7-8-48-13-32	DA
	VB	15-3	ZB (to F-Mg(B))
	VC	15-11	RC
	VD	15-11-10-51-17-19-47-20-21-22-31-23	DD
	VG	15-3-2	ZG (to F-Mg(G))
	VR	15-3-2-1	ZR (to F-Mg(R))
W-H ③	DC	33-14-28-29	SC
	DF	35-38-39-34-33-14-28	SF
		35-38-39	XY
	DK	23-37-36-33-14-28	SK
	DP	22-31-23-37-36-33-14-28	SP
	DR	23-37-36-33-14-28-29	SR
	RM	39-34-33-14-28-29	SM
	RQ	39-34-33-14-28-29	SQ
ANODE LEAD		4-9 (45”,50”,60”)	F.B.T.
		4-53-9 (40”)	
AN		13-48-8-7-51-CORE-FERRITE-42	RN
DJ		31-22-21-20-47-19-17-18	RJ
PA		25-24-24-25-25	TRANS
PB		25-24-30	DB
PC		27-26-26-27	TRANS
PG		21-41	RG
PK		21-20-47-19-17-18	RK
		21-20-21-41	RL
PZ		21-22-31-23	DZ
RA		17-18	PCB-SIGNAL
RH		40-38 (40”) 50-40-38 (45”,50”,60”)	DH
RP		12	EP
SA		28	CRT(R)
		43	CRT(G)
		44	CRT(B)
VU		16-15-3-2-1	SUB-DY(R)
VY		16-15-3	SUB-DY(B)
R-DY		38-50-45-5 (45”,50”,60”)	CRT(R)
		38-54-53-52-54-38-54-52 (40”)	
G-DY		38-50-45-5 (45”,50”,60”)	CRT(G)
		38-54-53-52-54-52 (40”)	
B-DY		38-50-45-50-38-50-45-5 (45”,50”,60”)	CRT(B)
		38-54-53-52-54-52-5 (40”)	


1
2
3
4
5
6
7
8
A
B
C
D
E
F
IC204 PA0030
FULL WAVE RECTIFICATION
HALF WAVE RECTIFICATION
OR
LIMITTER
IC2004 M62359P
14BIT SHIFT REGISTER
MSB
LSB
ADDRESS DECODER
GAIN SETTING LATCH
8BIT SEGMENT R-2R
8BIT LATCH
R-2R
G
L
IC202 CX20125
BLACK DETECTION
AMP X1
APL DETECTION
TRANSMISSION CORRECTION
OUTPUT BUFFER
GAIN CONTROL
PEDESTAL CLAMP
BLK
COMPARISON
Ref
BLACK PEAK HOLD
LIMITER
IC204
PA0030
APPARTURE
Q221
Y-DL-IN
DL203
IC2004
M62359P
D/A C
5V
C-T-2
C-T-1
VCC
V REF U
LD
D
CLOCK
R-H
R-V
B-H
B-V
PCB-CONV VC
RC
R-H
R-V
B-H
B-V
REF
PCB-POWER-SUB PK
RK
AUDIO Vcc 35V
GND
PCB-MAIN DJ
RJ
IC202
CX20125
BLACK-CPS
PEAK HOLD
BLK
CLP
OUT
DC
IN
VCC
Y
Q223
NR-SW
12V
Q222
Y-BUFFER
DL201 300ns
DL200 200ns
Q2B1
Y-BUFFER
TP20
Q2B0
BEAM-ADJ-SW
Q224
NOTCH-SW
Q240
CLAMP BUFF
Q2H1
SPOT-KIL
Q2M1
H-PROTECT
Q2M0
V-PROTECT
D201
D202
D203
D208
D209
D212
D213
D220 EQA02-06D RD6.2EB2
D228 EQA02-05D
D229
R135 3.9K 3W
D102 EQA02-30C /RD33EB1
BF IN
TU101
BTL
BPL
CLOCK
DATA
LOCK
IF
ENABLE
BM
BL
AGC
BH
BT
BU
L111 10μH
C122 10V 470
C123 16V 470μ
C139 Z-.01
R136 10
PCB-μ-COM GJ
MUTE3
LE
S-IN-R
LD
VAR/FIX
VOL
BASS
TRE
BALA
PCB-μ-COM GK
LOCK
MFT
TU-CLOCK
DATA
CLK]



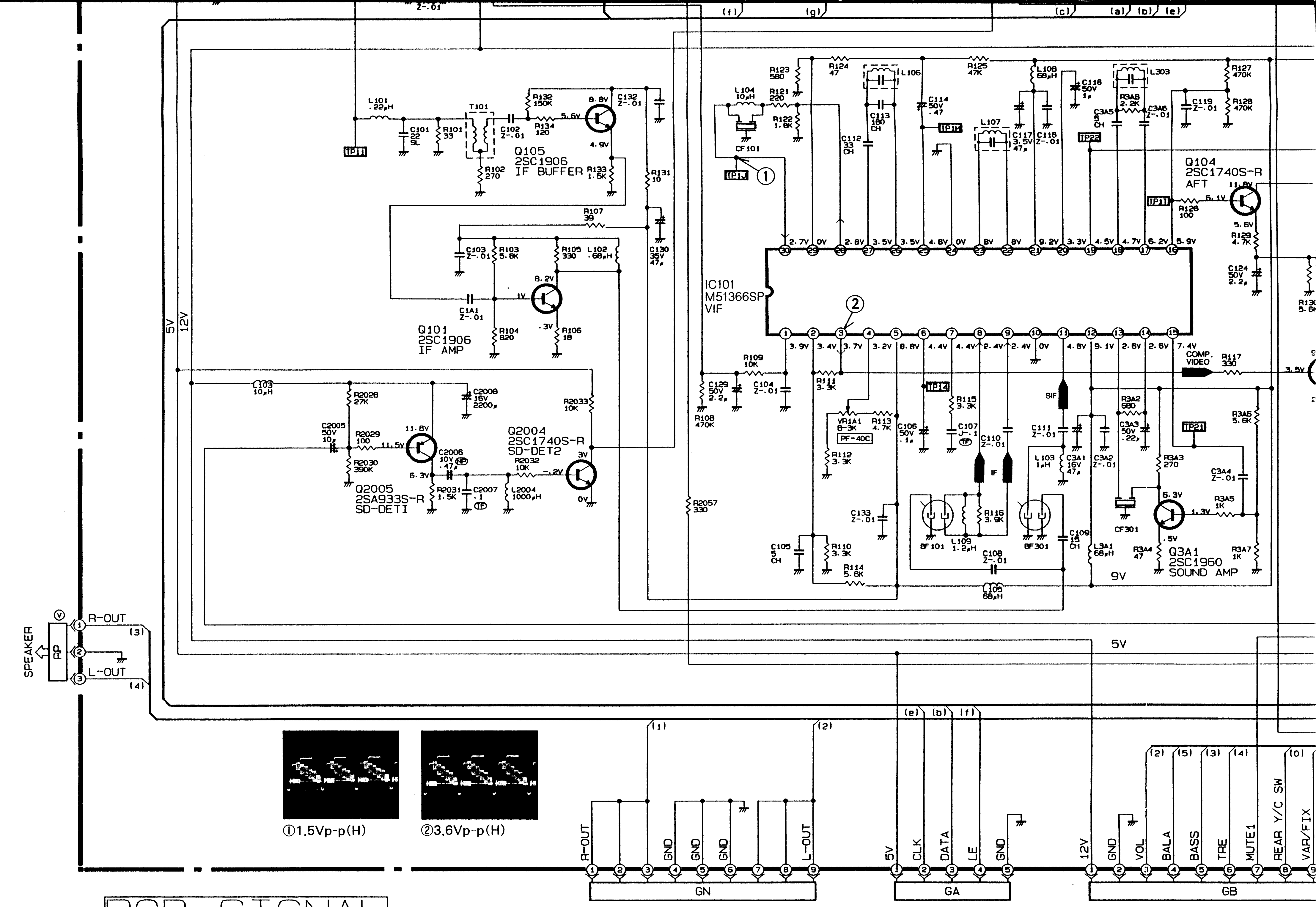
D
E
F
G
H
I
LATCH
8BIT LATCH
8BIT SEGMENT R-2R
R-2R
GAIN SETTING LATCH
G
14BIT SHIFT REG
LSB
IC202 CX20125
BLACK DETECTION
AMP X1
APL DETECTION
TRANSMISSION CORRECTION
OUTPUT BUFFER
GAIN CONTROL
PEDESTAL CLAMP
BLK
COMPARISON
Ref
BLACK PEAK HOLD
LIMITER
PCB-CONV VC
RC
R-H
R-V
B-H
B-V
REF
PCB-POWER-SUB PK
RK
AUDIO Vcc 35V
GND
PCB-MAIN DJ
RJ
R-OUT
LD
D
CLOCK
R-H
R-V
B-H
B-V
4.9V
3.5V
1V
6.1V
2.6V
.5V
.5V
0V
0V
R2019 100
R2020 100
R2021 100
R2022 100
R2023 100
J218 1K
J217 1K
J216 1K
R2012 1K
R2013 1K
R2014 1K
R2015 1K
C2016
C2017
C2018
C2019
IC202 CX20125 BLACK-CPS
PEAK HOLD
BLK
CLP
OUT
DC
IN
VCC
8.5V
.5V
0V
0V
7.3V
8.7V
5.5V
11.7V
C215 50V 10μ
R218 390K
C212 Z-.01
C213 16V 220μ
R220 2.2K
R221 2.2K
R223 150K
C217 50V 3.3μ
C216 50V 1μ
Y
Q240 CLAMP BUFF
Q2H1 SPOT-KIL
Q2M1 H-PROTECT
Q2M0 V-PROTECT
C240 Z-.01
R2B5 3.9K
C241 50V 1μ
D201
R2B7 1K
R2B6 1.6K
C242 330 SL
R2B4 4.7K
C2H1 35V 100μ
D209
R2L8 100K
D208
11.5V
11.7V
C2H3 35V 47μ
C206 .1
R2F5 2.7K
C2H2 50V 1μ
R2M0 8.2K
D229
D228 EQA02-05D
R2A4 100
2.3V
R2A5 1K
R2A9 47K
R2A6 6.8K
R2L7 10K
C207 50V 22μ
R2Z1 2.7K
D213
D220 EQA02-06D RD6.2EB2
R2Z0 100
1.6V
R2Z5 1K
D212
R135 3.9K 3W
D102 EQA02-30C /RD33EB1
C121 Z-.01
C120 50V 47μ
BF IN
TU101
BTL
BPL
CLOCK
DATA
LOCK
IF
ENABLE
BM
BL
AGC
BH
BT
BU
C134 1000
C135 1000
C136 1000
L111 10μH
C122 10V 470
C123 16V 470μ
R136 10
C139 Z-.01
PCB-μ-COM GJ
MUTE3
LE
S-IN-R
LD
VAR/FIX
VOL
BASS
TRE
BALA
PCB-μ-COM GK
LOCK
MFT
TU-CLOCK
DATA
CLK
5V
12V
L101 .22μH
C101 22 SL
R101 33
T101
C102 Z-.01
R132 150K
R134 120
5.6V
8.8V
4.9V
C132 Z-.01
Q105 2SC1906 IF BUFFER
R102 270
R133 1.5K
R131 10
R107 39
C103 Z-.01
R103 5.6K
R105 330
L102 .68μH
C130 35V 47μ
C1A1 Z-.01
8.2V
1V
.3V
R104 820
R106 18
Q101 2SC1906 IF AMP
L103 10μH
R2028 27K
C2008 16V 2200μ
C2005 50V 10μ
R2029 100
11.8V
11.5V
R2030 390K
C2006 10V .47μ
6.3V
R2031 1.5K
C2007 .1
R2032 10K
L2004 1000μH
R2033 10K
3V
-.2V
0V
Q2005 2SA933S-R SD-DET1
Q2004 2SC1740S-R SD-DET2
IC101 M51366SP VIF
R123 560
R124 47
L104 10μH
R121 220
R122 1.8K
CF101
TP13
L106
C113 180 CH
C112 33 CH
C114 50V .47
TP1M
R125 47K
L107
C117 3.5V 47μ
C116 Z-.01
L108 68μH
C118 50V 1μ
TP22
C3A5 CH
L303
R3A8 2.2K
C3A6 Z-.01
C119 Z-.01
R127 470K
R128 470K
Q104 2SC1740S-R AFT
TP1T
R126 100
11.8V
6.1V
5.6V
R129 4.7K
C124 50V 2.2μ
2.7V
0V
2.8V
3.5V
3.5V
4.6V
0V
8V
8V
9.2V
3.3V
4.5V
4.7V
6.2V
5.9V
3.9V
3.4V
3.7V
3.2V
8.8V
4.4V
4.4V
2.4V
2.4V
0V
4.8V
9.1V
2.6V
2.6V
7.4V
COMP. VIDEO
R117 330
R109 10K
C129 50V 2.2μ
C104 Z-.01
R108 470K
R111 3.3K
VR1A1 B-3K
PF-40C
R113 4.7K
R112 3.3K
C106 50V .1μ
TP14
R115 3.3K
C107 .1
C110 Z-.01
SIF
IF
C111 Z-.01
R3A2 680
C3A3 50V .22μ
TP21
R3A6 5.6K
R3A3 270
C3A4 Z-.01
R2057 330
C133 Z-.01
BF101
R116 3.9K
L109 1.2μH
BF301
L103 1μH
C3A1 16V 47μ
C3A2 Z-.01
C109 15 CH
CF301
6.3V
R3A5 1K
1.3V
.5V
Q3A1 2SC1960 SOUND AMP
R3A7 1K
C105 5 CH
R110 3.3K
R114 5.6K
C108 Z-.01
L105 68μH
L3A1 68μH
R3A4 47
9V
5V

G

H

I

J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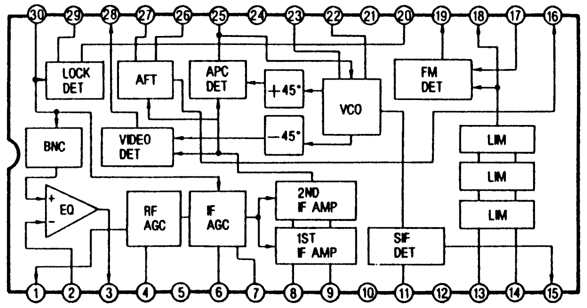
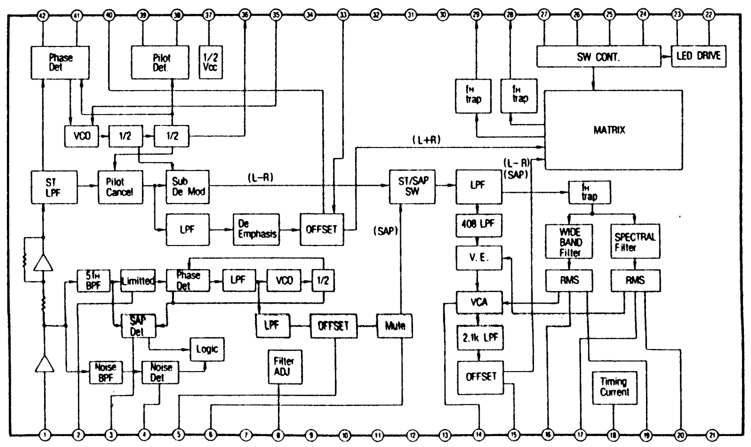
M51366SP
VIF
Q105
2SC1906
IF BUFFER
Q101
2SC1906
IF AMP
Q104
2SC1740S-R
AFT
Q2004
2SC1740S-R
SD-DET2
Q2005
2SA933S-R
SD-DET1
Q3A1
2SC1960
SOUND AMP
T101
CF101
CF301
BF101
BF301
PF-40C
TP11
TP12
TP14
TP21
TP22
COMP. VIDEO
SIF
IF
5V
12V
9V
SPEAKER
RP
R-OUT
L-OUT
①1,5Vp-p(H)
②3,6Vp-p(H)
R-OUT
GND
GND
GND
L-OUT
GN
5V
CLK
DATA
LE
GND
GA
12V
GND
VOL
BALA
BASS
TRE
MUTE1
REAR Y/C SW
VAR/FIX
GB
PCB-TERMINAL GN
PCB-TERMINAL GA
PCB-TERMINAL GB

PCB-SIGNAL

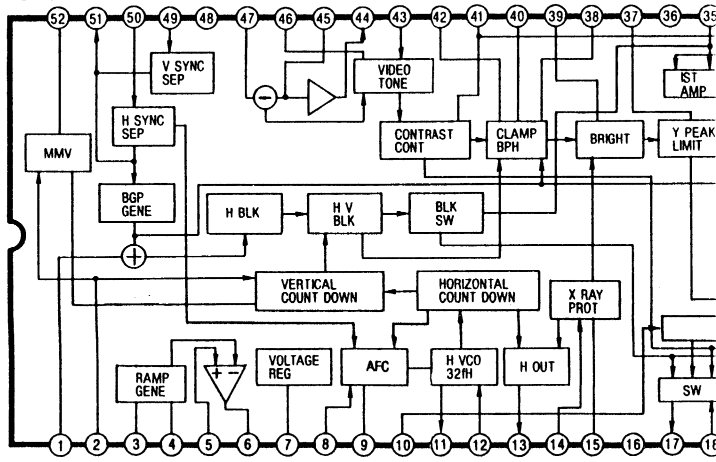
IC101 M51366SP

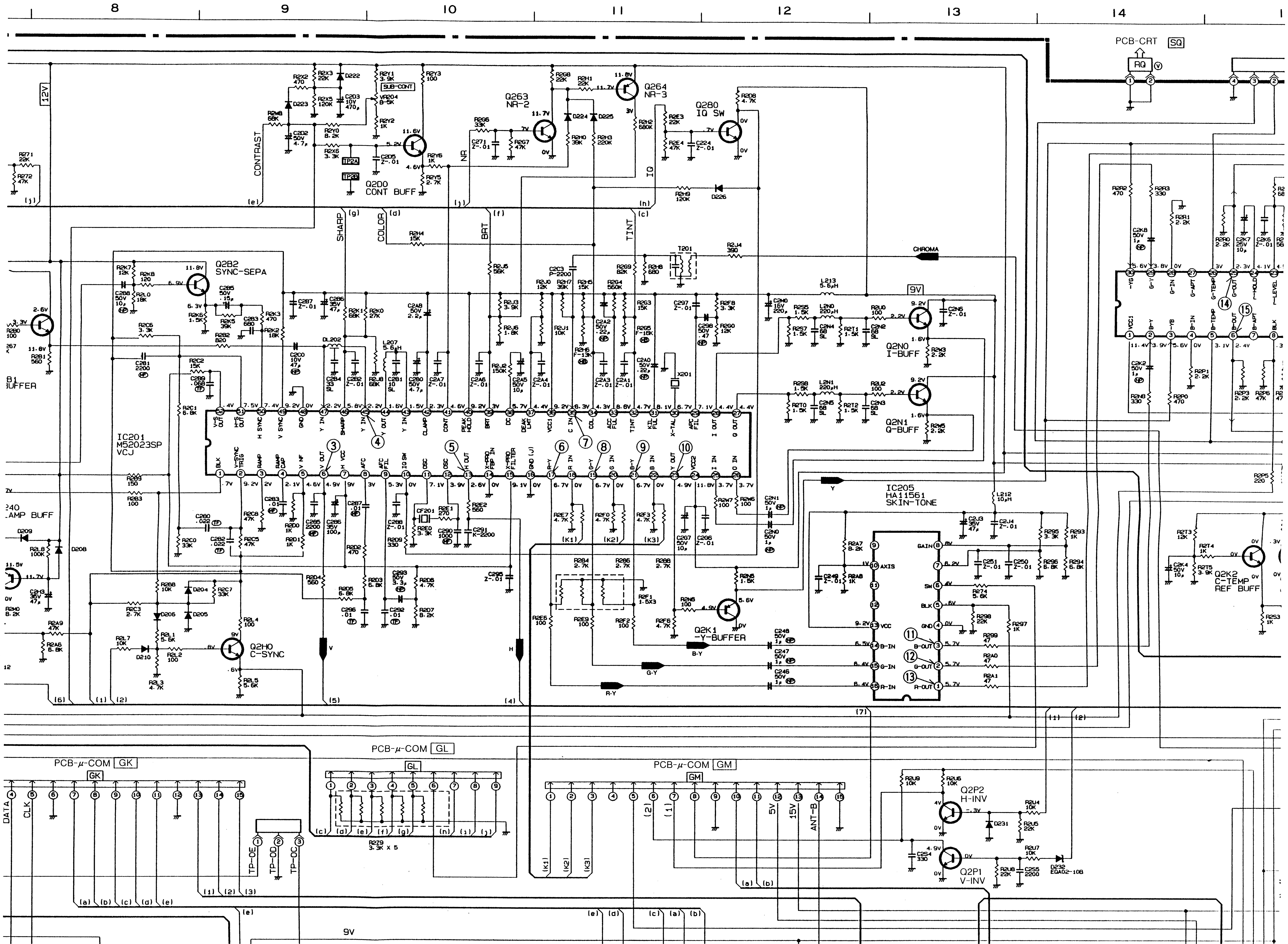

LOCK DET
AFT
APC DET
+45°
-45°
VCO
FM DET
BNC
VIDEO DET
LIM
LIM
LIM
EQ
RF AGC
IF AGC
2ND IF AMP
1ST IF AMP
SIF DET

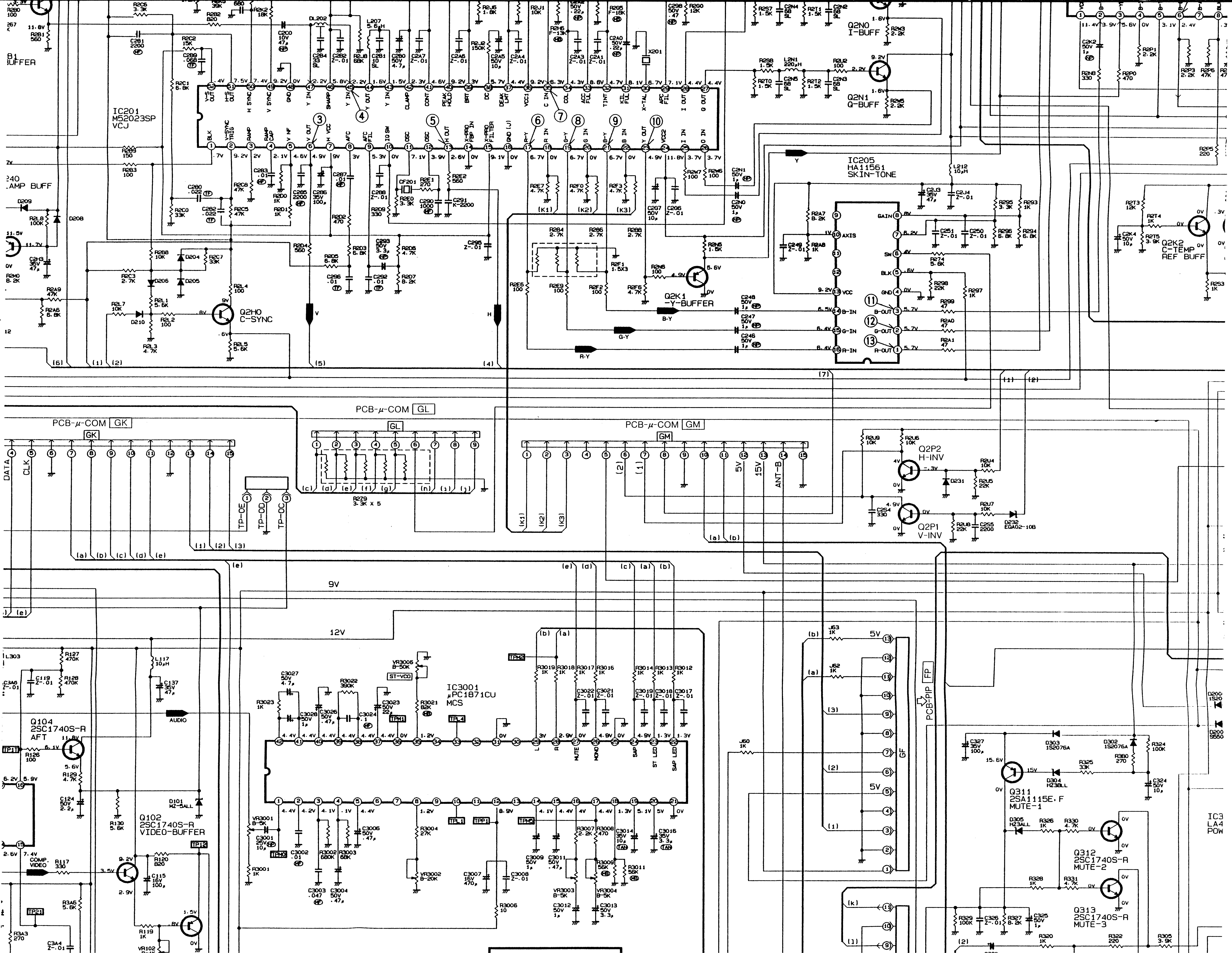
IC3001 μPC1871CU

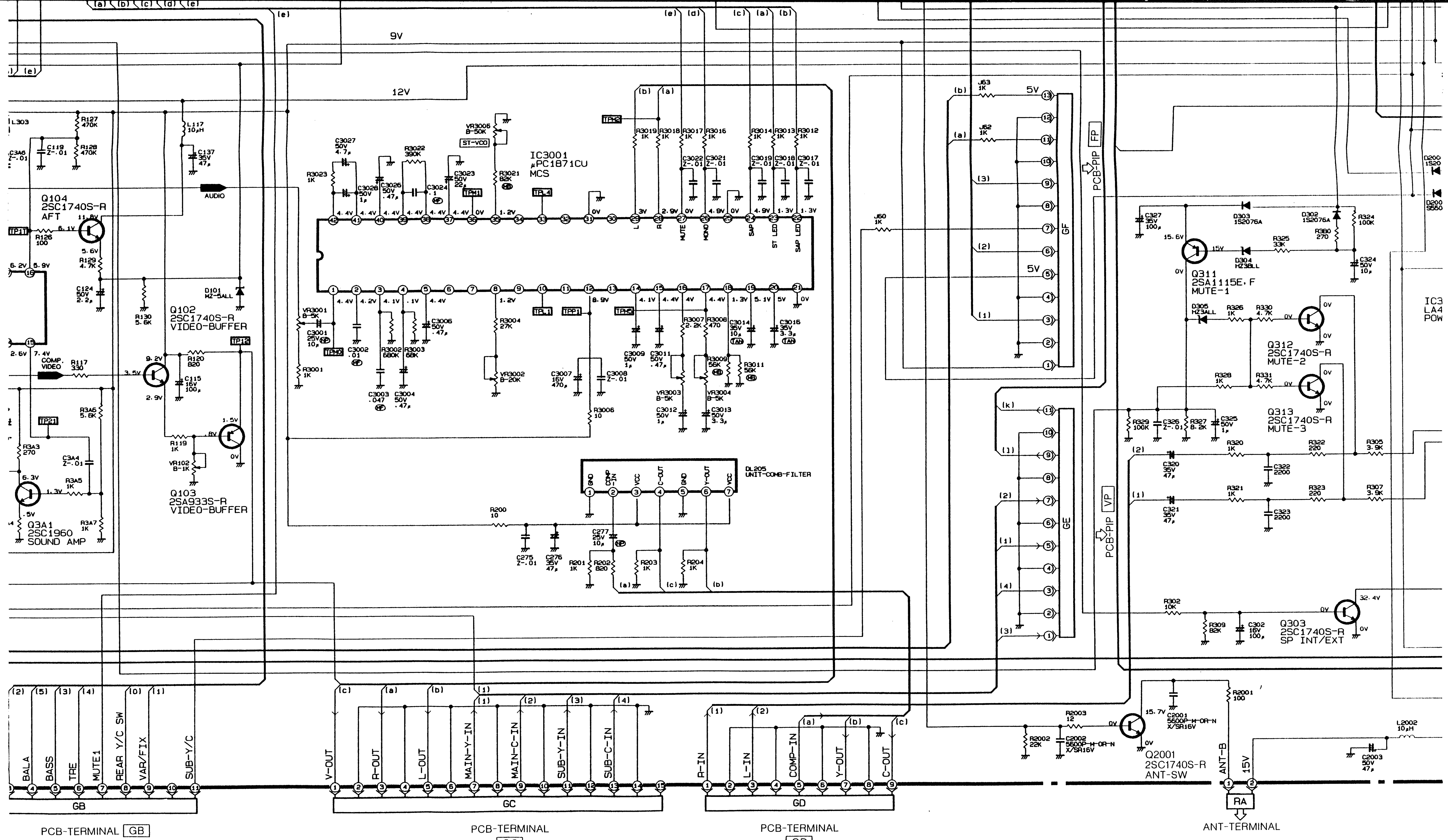

Phase Det
Pilot Det
1/2 Vcc
SW CONT.
LED DRIVE
VCO
1/2
1/2
MATRIX
ST LPF
Pilot Cancel
Sub De Mod
(L-R)
ST/SAP SW
LPF
De Emphasis
OFFSET
(SAP)
408 LPF
V.E.
WIDE BAND Filter
SPECTRAL Filter
RMS
RMS
VCA
2.1k LPF
OFFSET
Timing Current
5f BPF
Limitted
Phase Det
LPF
VCO
1/2
SAP Det
LPF
OFFSET
Mute
Logic
Noise BPF
Noise Det
Filter ADJ
(L+R)
(L-R)
(SAP)

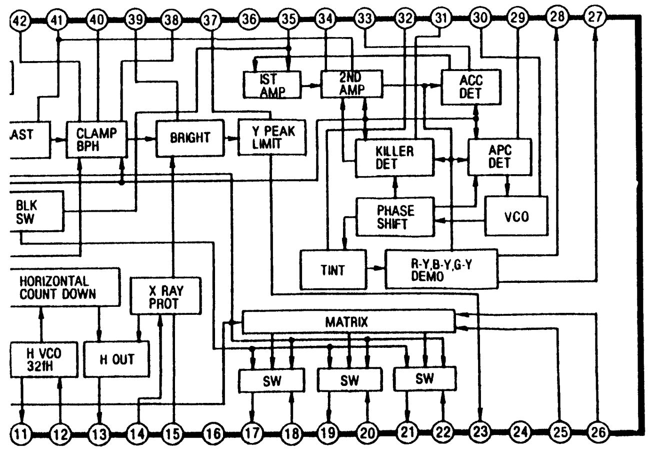
IC201 M52023SP

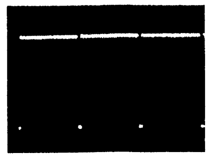

V SYNC SEP
H SYNC SEP
VIDEO TONE
CONTRAST CONT
CLAMP BPH
BRIGHT
Y PEAK LIMIT
1ST AMP
MMV
BGP GENE
H BLK
H V BLK
BLK SW
VERTICAL COUNT DOWN
HORIZONTAL COUNT DOWN
X RAY PROT
RAMP GENE
VOLTAGE REG
AFC
H VCO 32fH
H OUT
SW

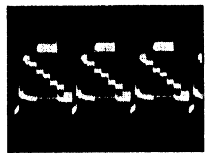

8
9
10
11
12
13
14
PCB-CRT SQ
RQ
12V
CONTRAST
SUB-CONT
VR204 B-5K
TP2A
TP2B
Q200 CONT BUFF
Q263 NR-2
Q264 NR-3
Q280 IQ SW
NR
IQ
SHARP
COLOR
BRT
TINT
CHROMA
T201
L213 5.6μH
L2N0 220μH
L2N1 220μH
9V
Q2N0 I-BUFF
Q2N1 Q-BUFF
Q2B2 SYNC-SEPA
DL202
L207 5.6μH
X201
CF201
IC201 M52023SP VCJ
V-S OUT
H-S OUT
H SYNC
V SYNC
GND
Y IN
SHARP
Y OUT
CLAMP
CONT
PEAK HOLD
BRT
DC
DEAK LMT
VCC1
C IN
COL
ACC FIL
TINT
KIL FIL
X-TAL
APC FIL
I OUT
Q OUT
BLK
V-SYNC TRIG
RAMP
RAMP CAP
V NF
V OUT
H VCC
AFC
AFC FIL
ID SW
OSC
H OUT
X-PRO REF IN
X-PRO FILTER
GND (V)
R-Y
R IN
G-Y
G IN
B-Y
B IN
VCC2
I IN
Q IN
240 CLAMP BUFF
Q2H0 C-SYNC
Q2K1 -Y-BUFFER
Y
B-Y
G-Y
R-Y
L212 10μH
IC205 HA11561 SKIN-TONE
GAIN
AXIS
SW
BLK
GND
VCC
B-IN
G-IN
R-IN
B-OUT
G-OUT
R-OUT
Q2K2 C-TEMP REF BUFF
-YG
G-Y
G-IN
G-APT
G-TEMP
G-OUT
F-HOLD
F-LEVEL
VCC1
B-Y
-YB
B-IN
B-TEMP
B-OUT
B-APT
BLK
PCB-μ-COM GK
DATA
CLK
TP-0E
TP-0D
TP-0C
PCB-μ-COM GL
R2Z9 3.3K x 5
PCB-μ-COM GM
(K1)
(K2)
(K3)
(2)
(1)
5V
15V
ANT-B
Q2P2 H-INV
Q2P1 V-INV
D232 EQA02-10B
9V

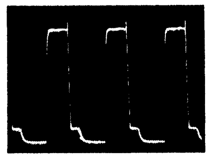
IC201
M52023SP
VCJ
V-S OUT
H-S OUT
H SYNC
V SYNC
GND
Y IN
SHARP
Y IN
Y OUT
CLAMP
CONT
PEAK HOLD
BRT
DC
DEAK LMT
VCC1
C IN
COL
ACC FIL
TINT
KIL FIL
X-TAL
APC FIL
I OUT
Q OUT
BLK
V-SYNC TRIG
RAMP
RAMP CAP
Y NF
Y OUT
H VCC
AFC
AFC FIL
IO SW
OSC
OSC
H OUT
X-PRO FBP IN
X-PRO FILTER
GND (J)
R-Y
R IN
G-Y
G IN
B-Y
B IN
Y OUT
VCC2
I IN
Q IN
Q2N0
I-BUFF
Q2N1
Q-BUFF
X201
IC205
HA11561
SKIN-TONE
GAIN
AXIS
SW
BLK
GND
VCC
B-IN
G-IN
R-IN
B-OUT
G-OUT
R-OUT
Q2K1
-Y-BUFFER
Q2K2
C-TEMP
REF BUFF
Q2H0
C-SYNC
CLAMP BUFF
BUFFER
Y
B-Y
G-Y
R-Y
V
H
PCB-μ-COM GK
GK
DATA
CLK
PCB-μ-COM GL
GL
R279
3.3K x 5
TP-OE
TP-OD
TP-OC
PCB-μ-COM GM
GM
5V
15V
ANT-B
Q2P2
H-INV
Q2P1
V-INV
D231
D232
EQA02-10B
9V
12V
AUDIO
Q104
2SC1740S-R
AFT
TP11
Q102
2SC1740S-R
VIDEO-BUFFER
TP12
TP21
COMP. VIDEO
D101
HZ-5ALL
L117
10μH
L303
IC3001
μPC1871CU
MCS
VR3006
B-50K
ST-VCO
TPM1
TPL4
TPM2
TPM3
TPM0
TPL1
TPP1
L
R
MUTE
MONO
SAP
ST LED
SAP LED
VR3001
B-5K
VR3002
B-20K
VR3003
B-5K
VR3004
B-5K
5V
GF
PCB-PIP
FP
Q311
2SA1115E, F
MUTE-1
Q312
2SC1740S-R
MUTE-2
Q313
2SC1740S-R
MUTE-3
D302
1S2076A
D303
1S2076A
D304
HZ3BLL
D305
HZ3ALL
IC3
LA4
POW

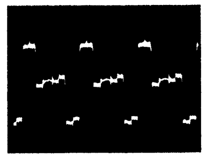

9V
12V
AUDIO
COMP. VIDEO
Q104
2SC1740S-R
AFT
Q102
2SC1740S-R
VIDEO-BUFFER
Q103
2SA933S-R
VIDEO-BUFFER
Q3A1
2SC1960
SOUND AMP
D101
MZ-5ALL
L117
10μH
TP11
TP12
TP21
IC3001
μPC1871CU
MCS
VR3005
B-50K
ST-VCO
TPH1
TPH2
TPH3
TPH4
TPH0
TPL1
TPL4
TPP1
L
R
MUTE
MONO
SAP
ST LED
SAP LED
DL205
UNIT-COMB-FILTER
GND
C-IN
VCC
C-OUT
GND
Y-OUT
VCC
R200
10
VR3001
B-5K
VR3002
B-20K
VR3003
B-5K
VR3004
B-5K
J63
1K
J62
1K
J60
1K
5V
GF
GE
PCB-PIP FP
PCB-PIP VP
Q311
2SA1115E.F
MUTE-1
Q312
2SC1740S-R
MUTE-2
Q313
2SC1740S-R
MUTE-3
Q303
2SC1740S-R
SP INT/EXT
D302
1S2076A
D303
1S2076A
D304
HZ3BLL
D305
HZ3ALL
IC3
LA4
POW
Q2001
2SC1740S-R
ANT-SW
L2002
10μH
BALA
BASS
TRE
MUTE1
REAR Y/C SW
VAR/FIX
SUB-Y/C
GB
V-OUT
R-OUT
L-OUT
MAIN-Y-IN
MAIN-C-IN
SUB-Y-IN
SUB-C-IN
GC
R-IN
L-IN
COMP-IN
Y-OUT
C-OUT
GD
ANT-B
15V
RA
PCB-TERMINAL GB
PCB-TERMINAL GC
PCB-TERMINAL GD
ANT-TERMINAL

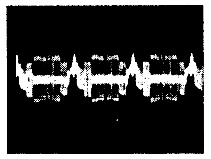

AST
CLAMP BPH
BRIGHT
Y PEAK LIMIT
1ST AMP
2ND AMP
ACC DET
KILLER DET
APC DET
PHASE SHIFT
VCO
TINT
R-Y,B-Y,G-Y DEMO
BLK SW
HORIZONTAL COUNT DOWN
X RAY PROT
MATRIX
H VCO 32fH
H OUT
SW
SW
SW

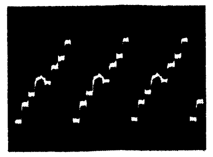

③5.0Vp-p(V)

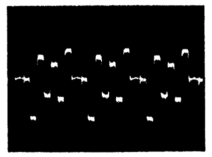

④0.4Vp-p(H)

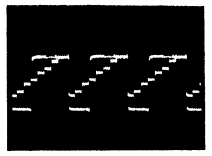

⑤6.7Vp-p(H)

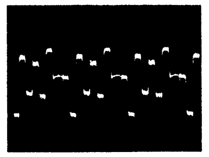

⑥4.5Vp-p(H)

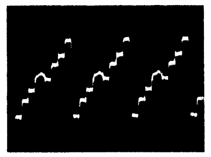

⑦0.3Vp-p(H)

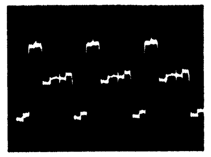

⑧0.9Vp-p(H)


⑨2.0Vp-p(H)

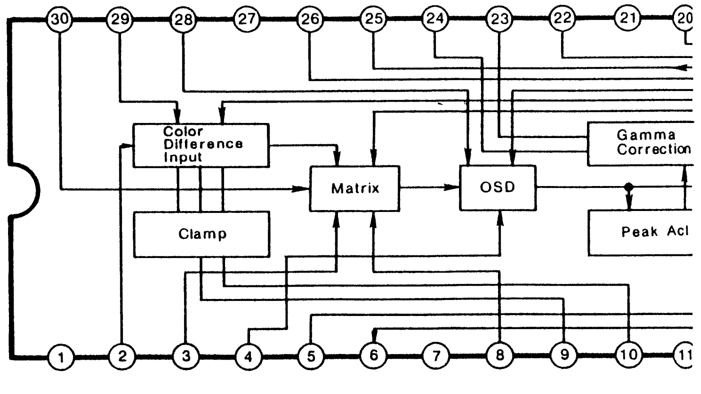

⑩2.0Vp-p(H)

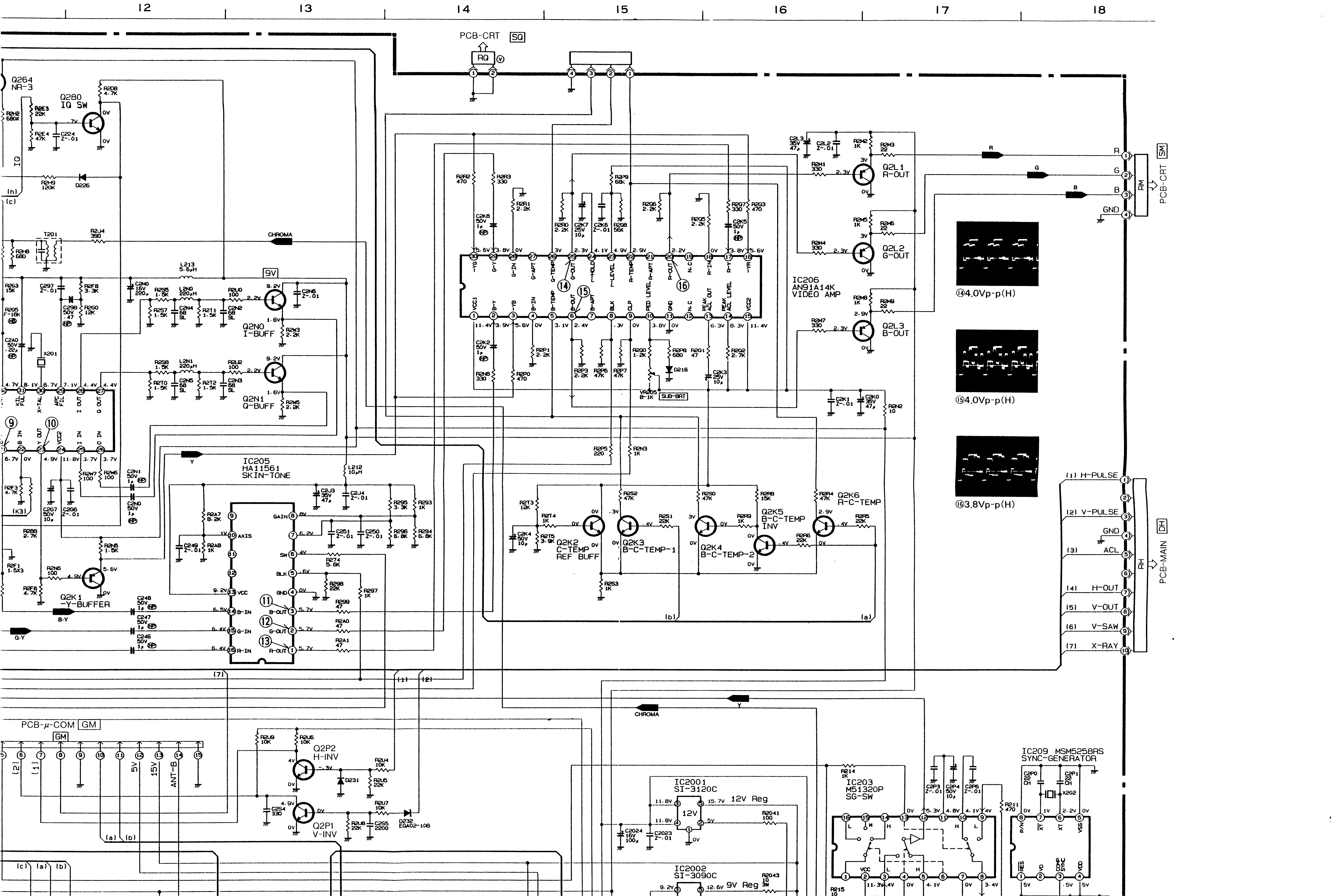

⑪1.9Vp-p(H)

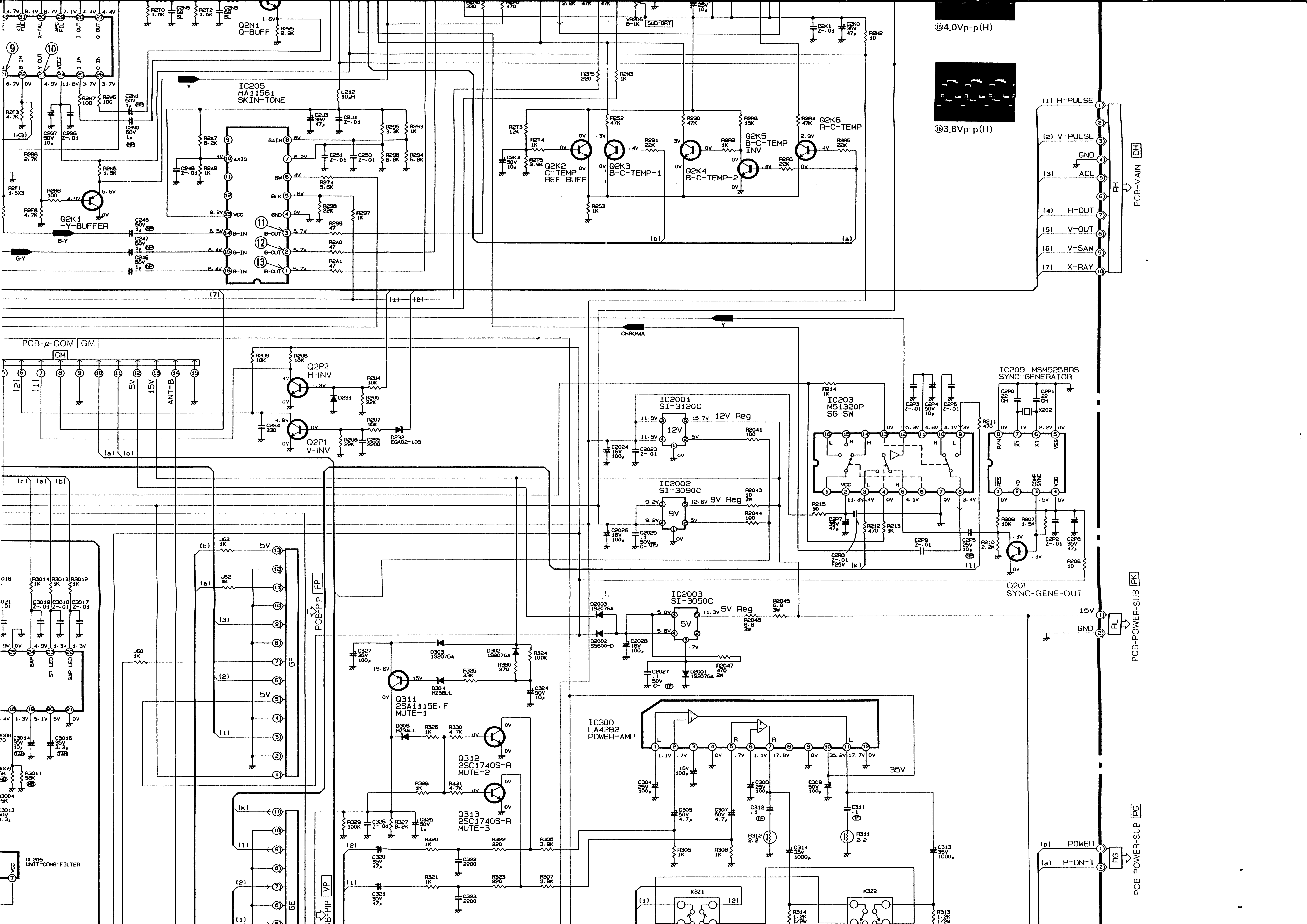

⑫0.9Vp-p(H)

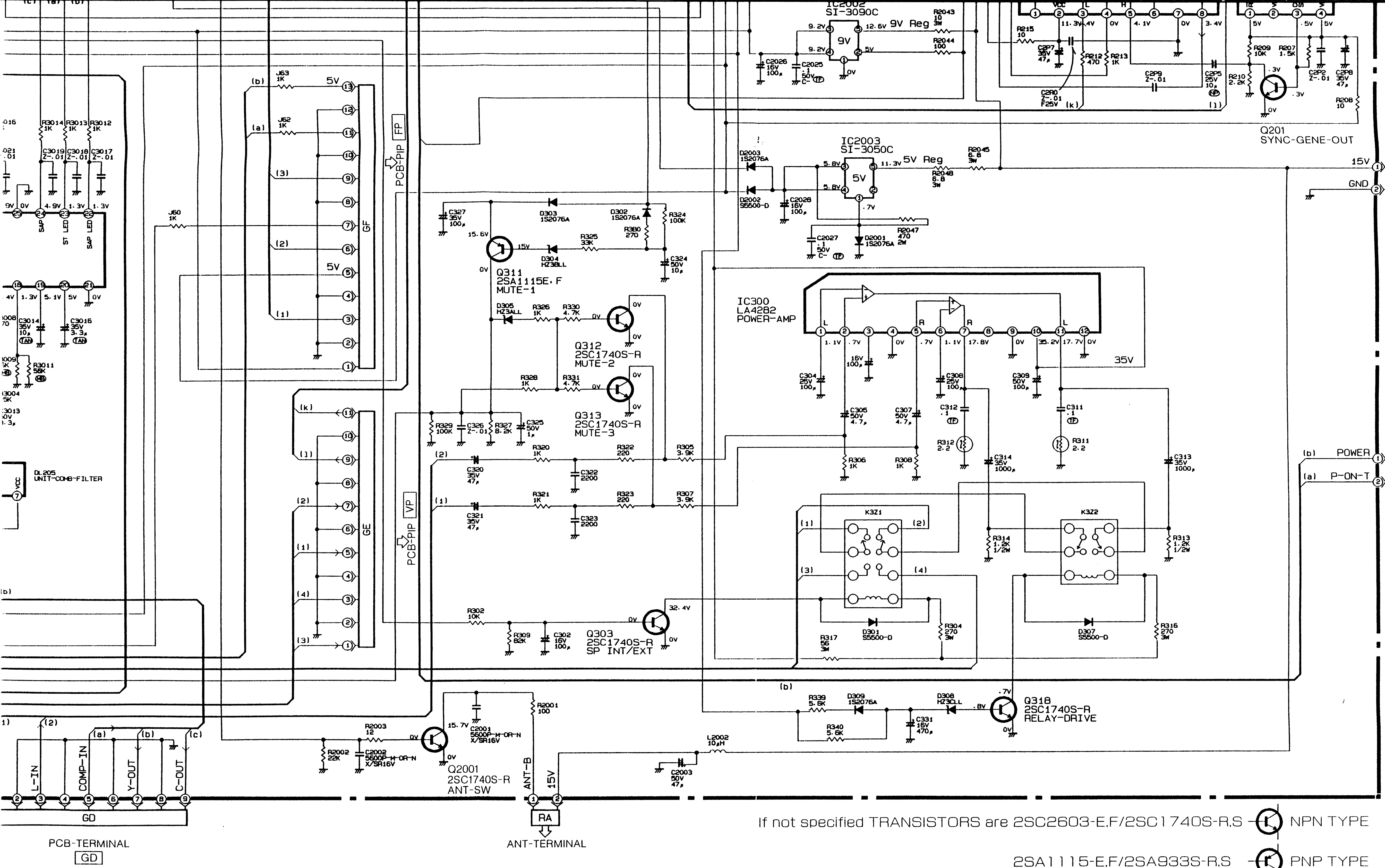

⑬2.3Vp-p(H)

IC206 AN91A14K


Color Difference Input
Matrix
OSD
Gamma Correction
Clamp
Peak Acl

12
13
14
15
16
17
18
PCB-CRT SQ
RQ
Q264 NR-3
Q280 IQ SW
IQ
D226
T201
CHROMA
9V
Q2N0 I-BUFF
Q2N1 Q-BUFF
X201
X-TAL
APC FIL
I OUT
Q OUT
B IN
Y OUT
VCC2
I IN
Q IN
Y
IC205 HA11561 SKIN-TONE
GAIN
AXIS
SW
BLK
GND
VCC
B-IN
G-IN
R-IN
B-OUT
G-OUT
R-OUT
Q2K1 -Y-BUFFER
B-Y
G-Y
IC206 AN91A14K VIDEO AMP
-YG
G-Y
G-IN
G-APT
G-TEMP
G-OUT
γ-HOLD
γ-LEVEL
R-TEMP
R-APT
R-OUT
N.C
R-IN
R-Y
-YR
VCC1
B-Y
YB
B-IN
B-TEMP
B-OUT
B-APT
BLK
CLP
PED LEVEL
GND
N.C
PEAK ACL OUT
PEAK ACL LEVEL
VCC2
VR205 B-1K SUB-BRT
D216
Q2L1 R-OUT
Q2L2 G-OUT
Q2L3 B-OUT
R
G
B
GND
RM
PCB-CRT SM
⑭4.0Vp-p(H)
⑮4.0Vp-p(H)
⑯3.8Vp-p(H)
Q2K2 C-TEMP REF BUFF
Q2K3 B-C-TEMP-1
Q2K4 B-C-TEMP-2
Q2K5 B-C-TEMP INV
Q2K6 R-C-TEMP
(1) H-PULSE
(2) V-PULSE
GND
(3) ACL
(4) H-OUT
(5) V-OUT
(6) V-SAW
(7) X-RAY
RH
PCB-MAIN DH
PCB-μ-COM GM
GM
5V
15V
ANT-B
Q2P2 H-INV
Q2P1 V-INV
D231
D232 EQA02-10B
CHROMA
Y
IC2001 SI-3120C
12V Reg
12V
IC2002 SI-3090C
9V Reg
IC203 M51320P SG-SW
IC209 MSM5258RS SYNC-GENERATOR
X202
P/N
XT
VSS
RES
VD
COMP SYNC
VDD

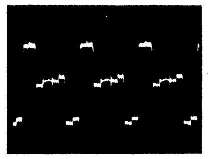

⑮4.0Vp-p(H)
⑯3.8Vp-p(H)
IC205
HA11561
SKIN-TONE
Q2N1
Q-BUFF
Q2K1
-Y-BUFFER
B-Y
G-Y
Y
GAIN
AXIS
VCC
SW
BLK
GND
B-IN
G-IN
R-IN
B-OUT
G-OUT
R-OUT
Q2K2
C-TEMP
REF BUFF
Q2K3
B-C-TEMP-1
Q2K4
B-C-TEMP-2
Q2K5
B-C-TEMP
INV
Q2K6
R-C-TEMP
VR205
SUB-BRT
(1) H-PULSE
(2) V-PULSE
GND
(3) ACL
(4) H-OUT
(5) V-OUT
(6) V-SAW
(7) X-RAY
RH
PCB-MAIN
DH
PCB-μ-COM
GM
5V
15V
ANT-B
Q2P2
H-INV
Q2P1
V-INV
D231
D232
EQA02-10B
CHROMA
IC2001
SI-3120C
12V Reg
IC2002
SI-3090C
9V Reg
IC2003
SI-3050C
5V Reg
D2003
1S2076A
D2002
S5500-D
D2001
1S2076A
IC203
M51320P
SG-SW
IC209 MSM5258RS
SYNC-GENERATOR
X202
P/N
XT
VSS
RES
VD
C SYNC
VDD
Q201
SYNC-GENE-OUT
15V
GND
RL
PCB-POWER-SUB
PK
GF
FP
PCB-PIP
Q311
2SA1115E,F
MUTE-1
D303
1S2076A
D302
1S2076A
D304
HZ3BLL
D305
HZ3ALL
Q312
2SC1740S-R
MUTE-2
Q313
2SC1740S-R
MUTE-3
IC300
LA4282
POWER-AMP
35V
GE
VP
B-PIP
DL205
UNIT-COMB-FILTER
VCC
K3Z1
K3Z2
(b) POWER
(a) P-ON-T
RG
PG
SAP
ST LED
SAP LED
X-TAL
APC FIL
I OUT
Q OUT
B IN
Y OUT
VCC2
I IN
Q IN

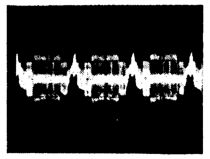

IC2002
SI-3090C
9V Reg
R2043 10 3W
R2044 100
C2026 16V 100µ
C2025 .1 50V
IC2003
SI-3050C
5V Reg
R2045 6.8 3W
R2048 6.8 3W
R2047 470 2W
D2003 1S2076A
D2002 S5500-D
D2001 1S2076A
C2028 16V 100µ
C2027 .1 50V
Q201
SYNC-GENE-OUT
15V
GND
RL
PCB-POWER-SUB PK
IC300
LA4282
POWER-AMP
35V
Q311
2SA1115E.F
MUTE-1
Q312
2SC1740S-R
MUTE-2
Q313
2SC1740S-R
MUTE-3
Q303
2SC1740S-R
SP INT/EXT
Q318
2SC1740S-R
RELAY-DRIVE
Q2001
2SC1740S-R
ANT-SW
D303 1S2076A
D302 1S2076A
D304 HZ38LL
D305 HZ3ALL
D301 S5500-D
D307 S5500-D
D309 1S2076A
D308 HZ3CLL
K3Z1
K3Z2
R313 1.2K 1/2W
R314 1.2K 1/2W
R304 270 3W
R316 270 3W
R317 56 3W
C313 35V 1000µ
C314 35V 1000µ
L2002 10µH
C2003 50V 47µ
POWER
P-ON-T
RG
PCB-POWER-SUB PG
GF
GE
PCB-PIP FP
PCB-PIP VP
DL205
UNIT-COMB-FILTER
SAP
ST LED
SAP LED
L-IN
COMP-IN
Y-OUT
C-OUT
ANT-B
GD
PCB-TERMINAL
GD
RA
ANT-TERMINAL

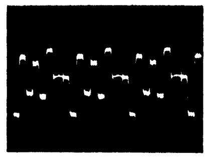
If not specified TRANSISTORS are 2SC2603-E.F/2SC1740S-R.S NPN TYPE

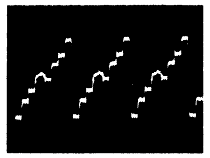
2SA1115-E.F/2SA933S-R.S PNP TYPE

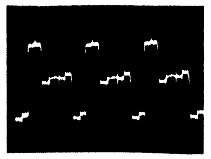
If not specified DIODES are 1S2076A/1S2471


⑥4.5Vp-p(H)

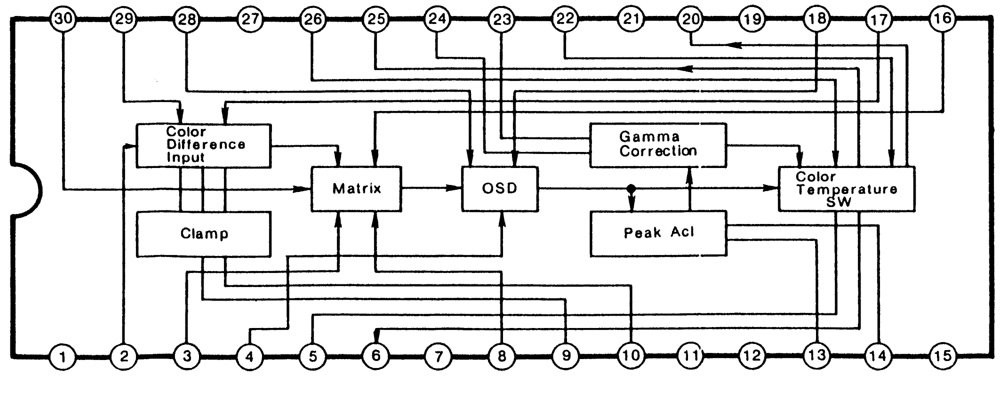

⑦0.3Vp-p(H)


⑪1.9Vp-p(H)

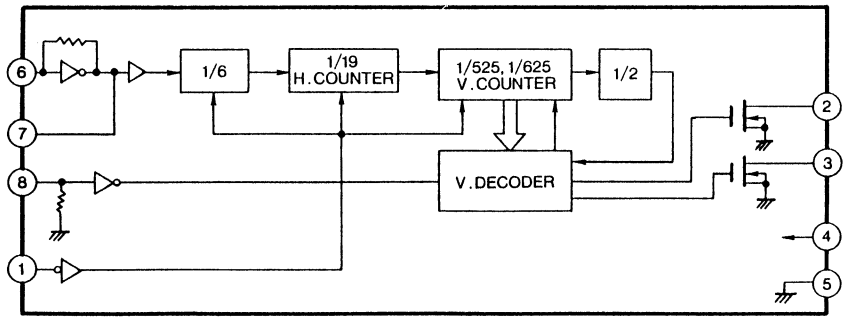

⑫0.9Vp-p(H)

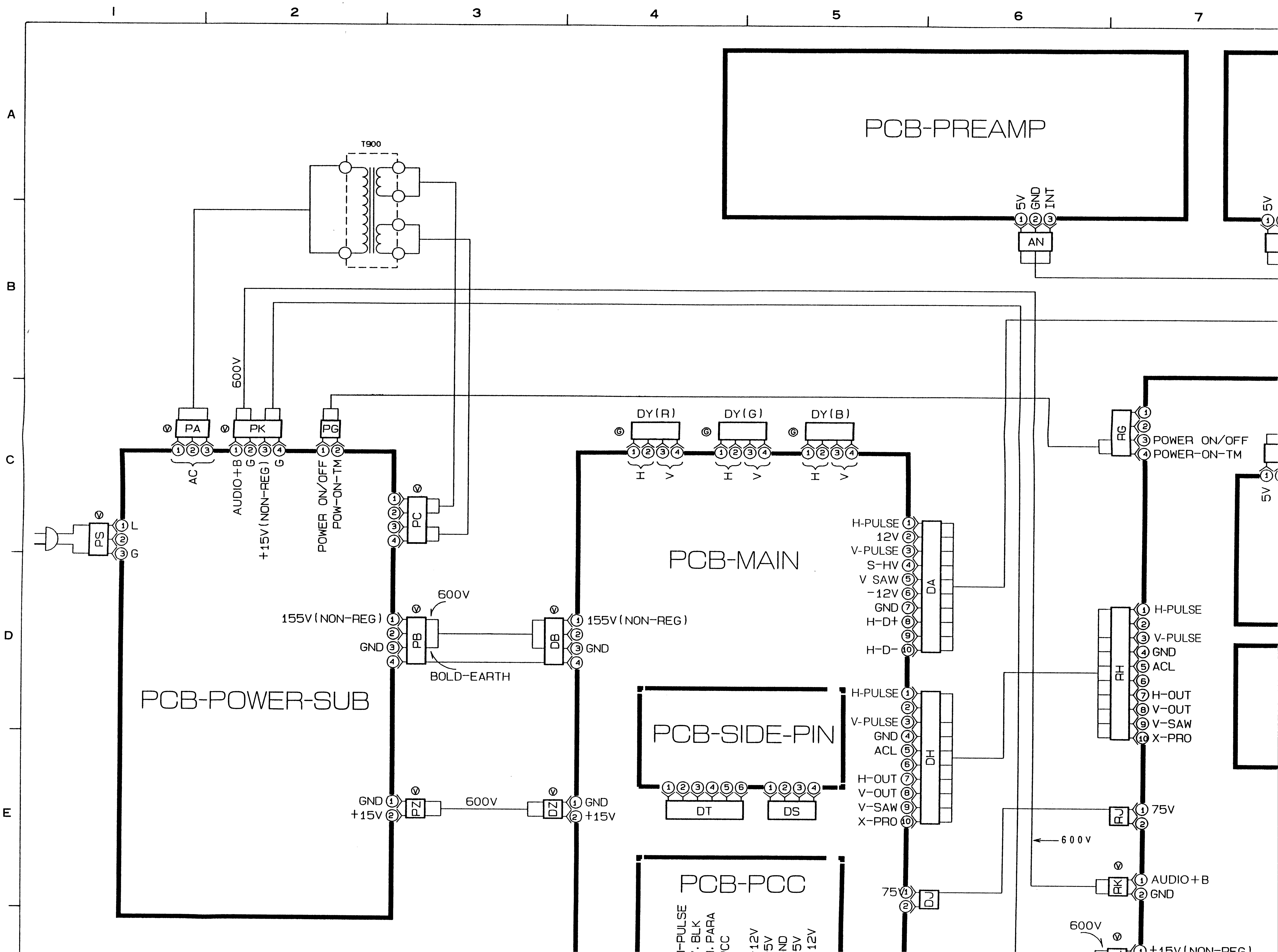

⑬2.3Vp-p(H)

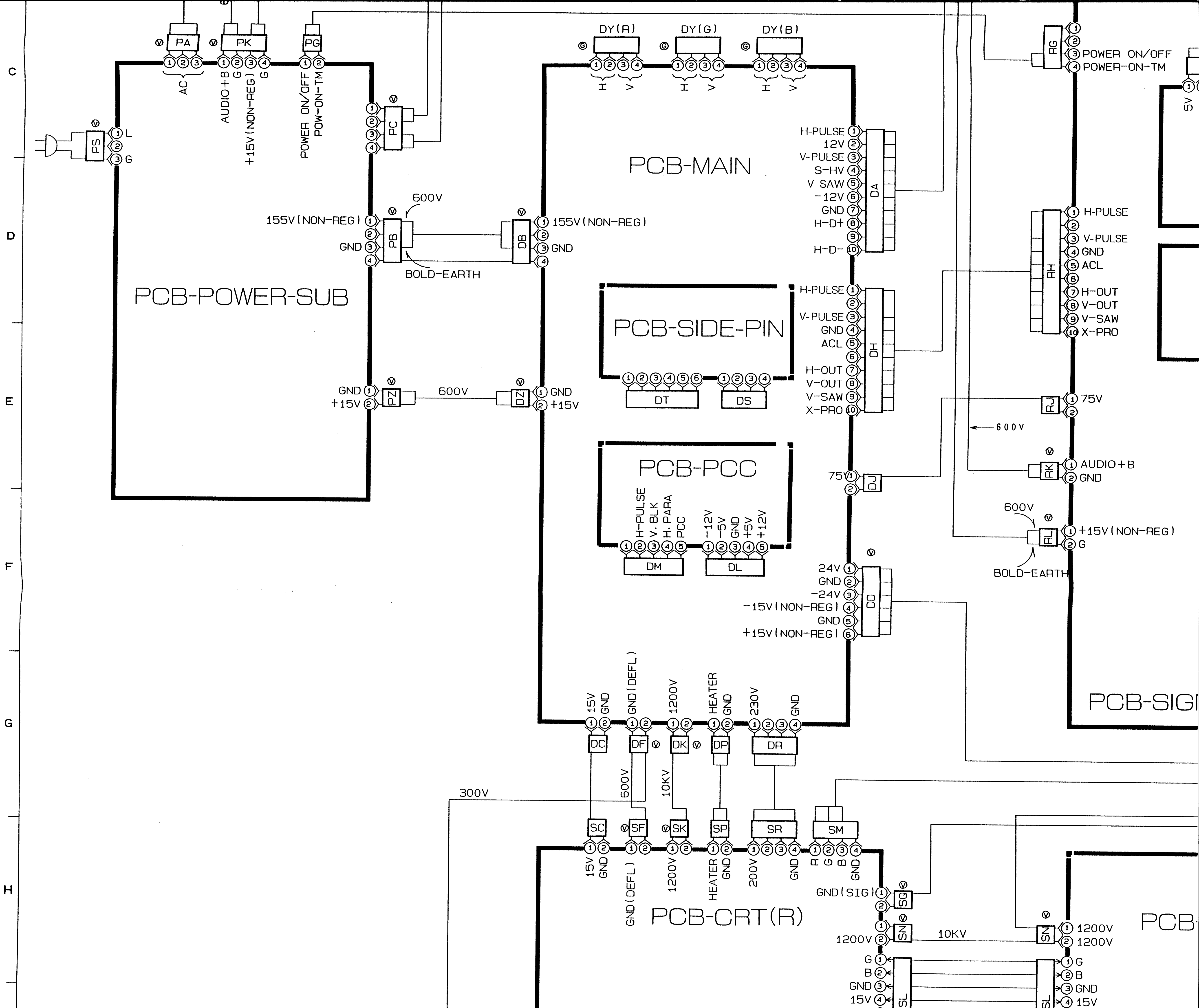
IC206 AN91A14K

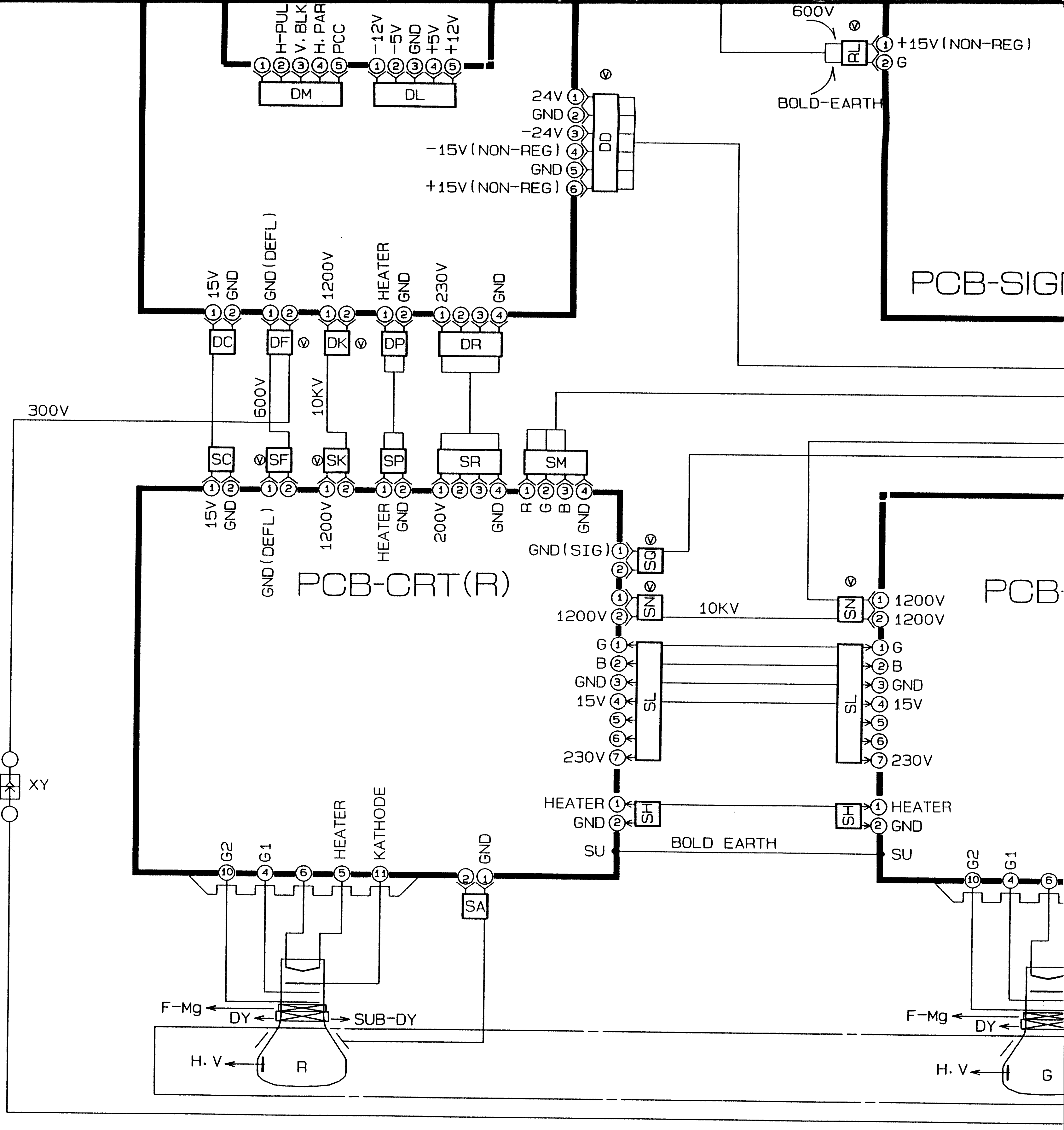

Color Difference Input
Clamp
Matrix
OSD
Gamma Correction
Peak Acl
Color Temperature SW

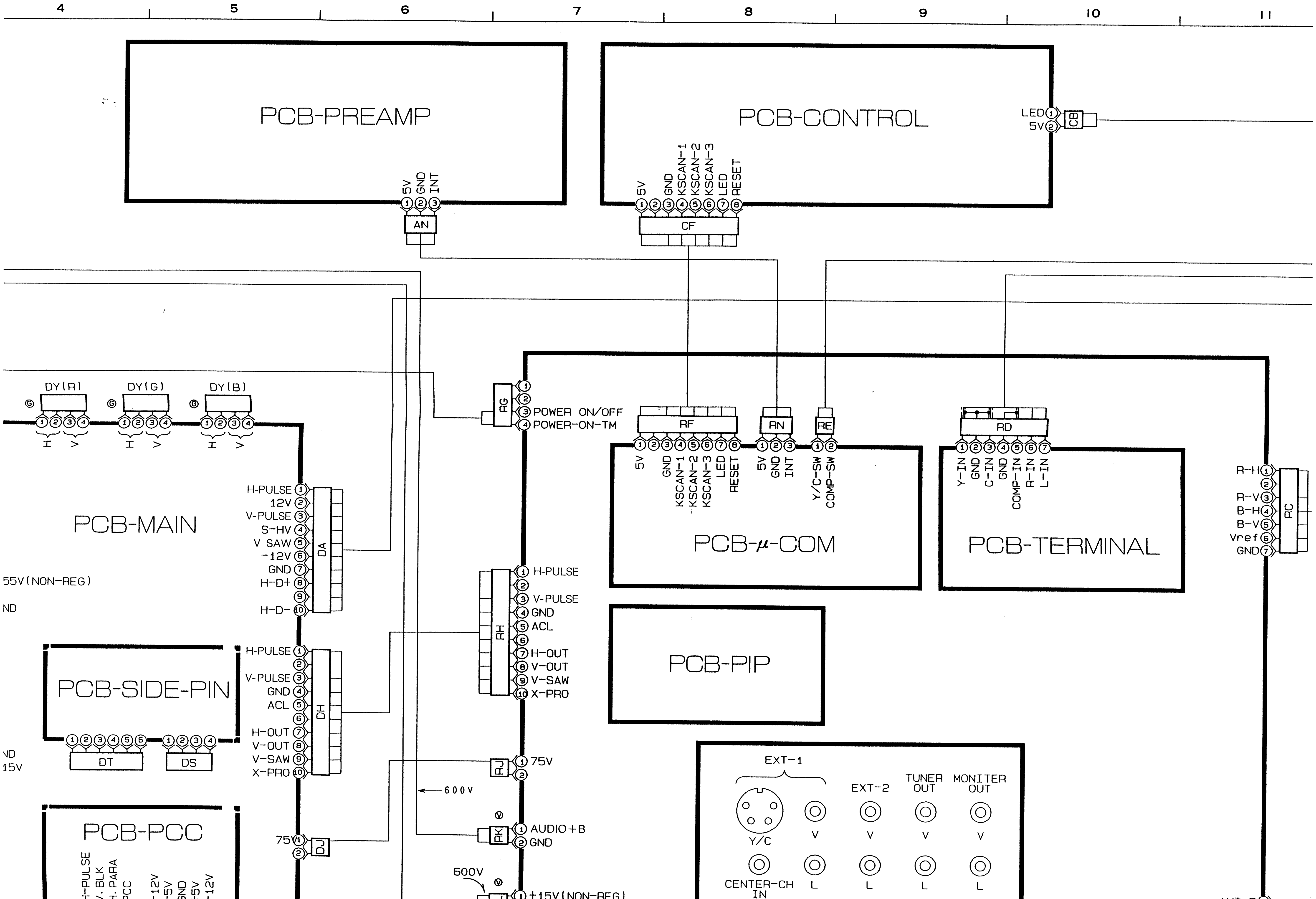
IC209 MSM5258RS

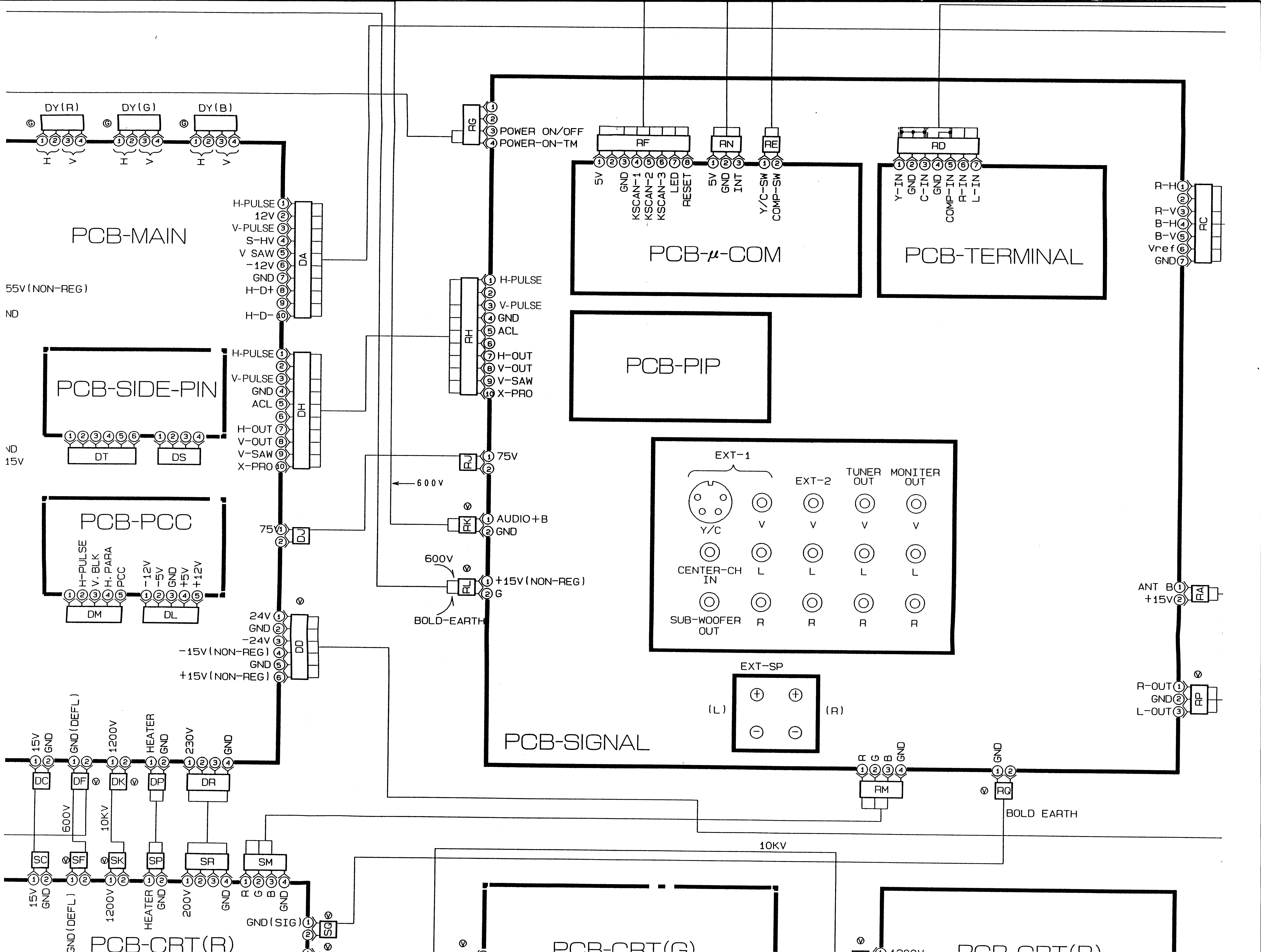

1/6
1/19 H.COUNTER
1/525, 1/625 V.COUNTER
1/2
V.DECODER

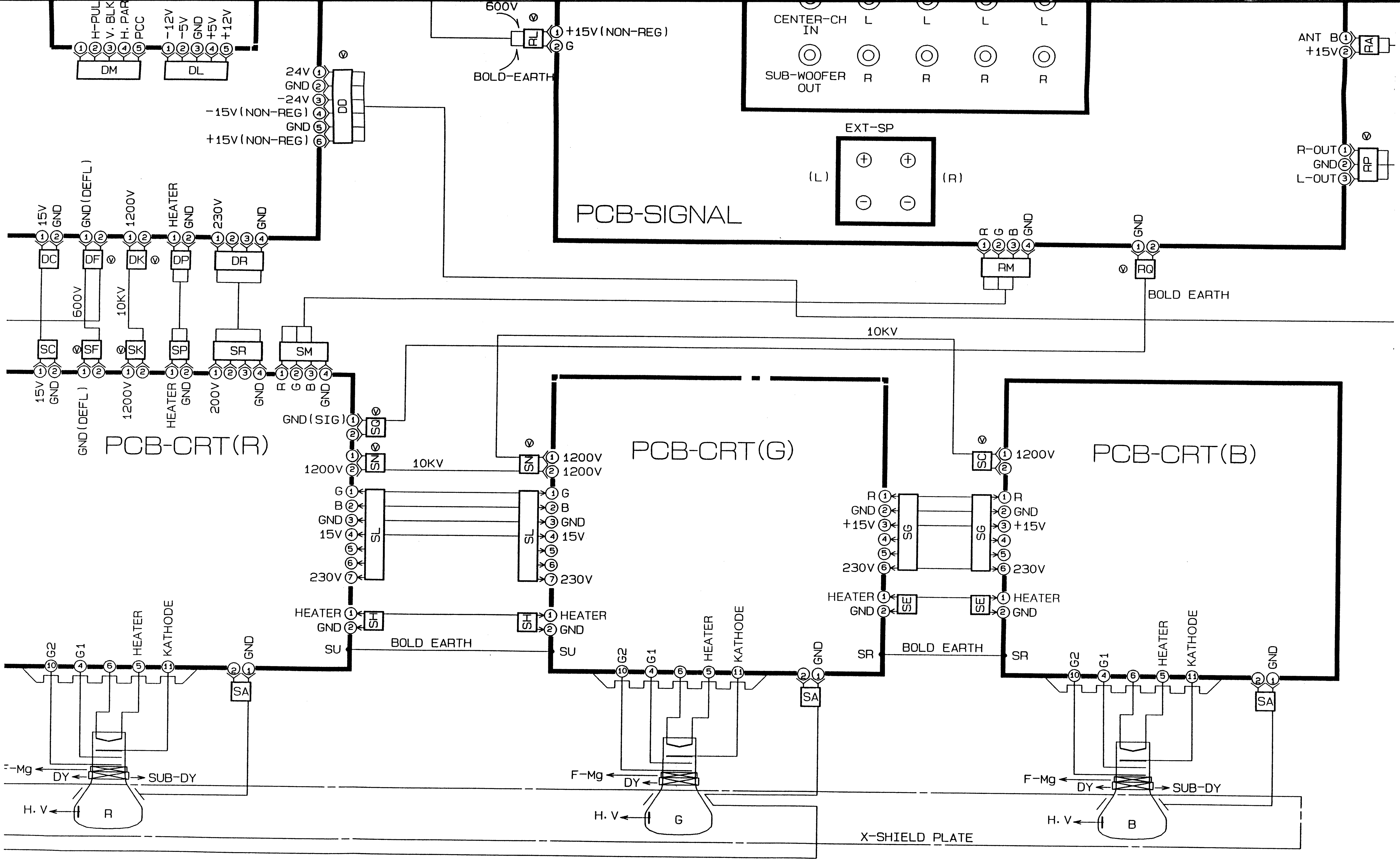

1
2
3
4
5
6
7
A
B
C
D
E
PCB-PREAMP
5V
GND
INT
AN
5V
T900
600V
PA
PK
PG
AC
AUDIO+B
G
+15V(NON-REG)
G
POWER ON/OFF
POW-ON-TM
PS
L
G
PC
PCB-POWER-SUB
155V(NON-REG)
GND
PB
600V
BOLD-EARTH
DB
155V(NON-REG)
GND
GND
+15V
PZ
600V
DZ
GND
+15V
DY(R)
DY(G)
DY(B)
H
V
PCB-MAIN
H-PULSE
12V
V-PULSE
S-HV
V SAW
-12V
GND
H-D+
H-D-
DA
PCB-SIDE-PIN
DT
DS
H-PULSE
V-PULSE
GND
ACL
H-OUT
V-OUT
V-SAW
X-PRO
DH
PCB-PCC
-PULSE
. BLK
. PARA
CC
12V
5V
ND
5V
12V
75V
DJ
RG
POWER ON/OFF
POWER-ON-TM
5V
RH
H-PULSE
V-PULSE
GND
ACL
H-OUT
V-OUT
V-SAW
X-PRO
RJ
75V
600V
RK
AUDIO+B
GND
600V
+15V(NON-REG)

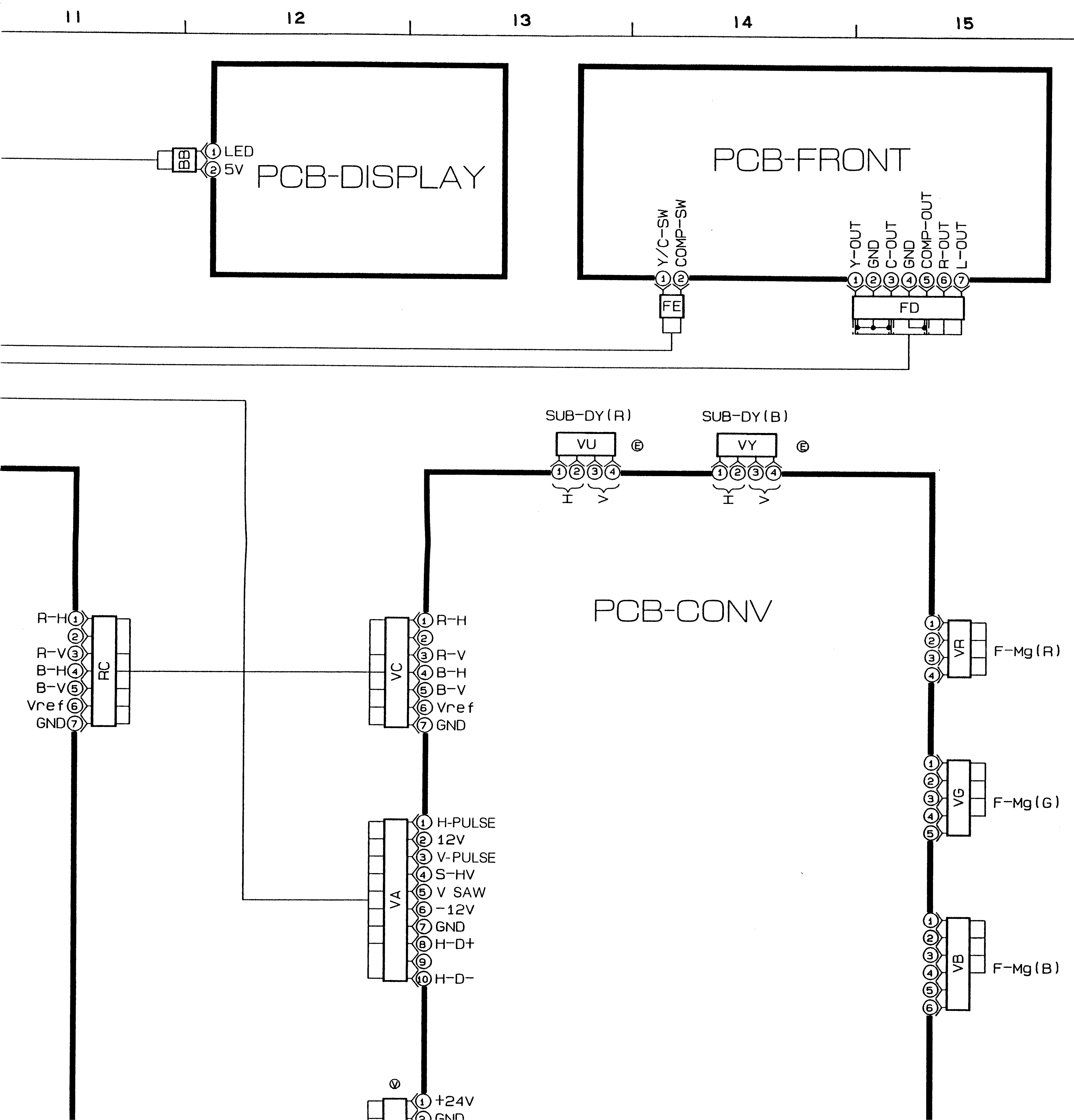

C
D
E
F
G
H
PA
PK
PG
AC
AUDIO+B
G
+15V(NON-REG)
G
POWER ON/OFF
POW-ON-TM
PS
L
G
PC
PCB-POWER-SUB
155V(NON-REG)
GND
PB
600V
BOLD-EARTH
DB
155V(NON-REG)
GND
GND
+15V
PZ
600V
DZ
GND
+15V
DY(R)
DY(G)
DY(B)
H
V
PCB-MAIN
H-PULSE
12V
V-PULSE
S-HV
V SAW
-12V
GND
H-D+
H-D-
DA
PCB-SIDE-PIN
DT
DS
H-PULSE
V-PULSE
GND
ACL
H-OUT
V-OUT
V-SAW
X-PRO
DH
PCB-PCC
H-PULSE
V.BLK
H.PARA
PCC
-12V
-5V
GND
+5V
+12V
DM
DL
75V
DJ
24V
GND
-24V
-15V(NON-REG)
GND
+15V(NON-REG)
DD
15V
GND
GND(DEFL)
1200V
HEATER
GND
230V
GND
DC
DF
DK
DP
DR
300V
600V
10KV
SC
SF
SK
SP
SR
SM
15V
GND
GND(DEFL)
1200V
HEATER
GND
200V
GND
R
G
B
GND
PCB-CRT(R)
GND(SIG)
SG
SN
1200V
10KV
G
B
GND
15V
SL
RG
POWER ON/OFF
POWER-ON-TM
5V
H-PULSE
V-PULSE
GND
ACL
H-OUT
V-OUT
V-SAW
X-PRO
RH
RJ
75V
600V
RK
AUDIO+B
GND
600V
RL
+15V(NON-REG)
G
BOLD-EARTH
PCB-SIGN
SN
1200V
1200V
SL
G
B
GND
15V
PCB-


F
G
H
I
J
K
H-PUL
V. BLK
H. PAR
PCC
-12V
-5V
GND
+5V
+12V
DM
DL
24V
GND
-24V
-15V(NON-REG)
GND
+15V(NON-REG)
DD
600V
RL
+15V(NON-REG)
G
BOLD-EARTH
PCB-SIG
15V
GND
GND(DEFL)
1200V
HEATER
GND
230V
GND
DC
DF
DK
DP
DR
300V
600V
10KV
SC
SF
SK
SP
SR
SM
15V
GND
GND(DEFL)
1200V
HEATER
GND
200V
GND
R
G
B
GND
GND(SIG)
SG
PCB-CRT(R)
SN
1200V
10KV
SN
1200V
1200V
PCB-
G
B
GND
15V
230V
SL
SL
G
B
GND
15V
230V
XY
HEATER
GND
SH
SH
HEATER
GND
SU
BOLD EARTH
SU
G2
G1
HEATER
KATHODE
GND
SA
F-Mg
DY
SUB-DY
H. V
R
G2
G1
F-Mg
DY
H. V
G


4
5
6
7
8
9
10
11
PCB-PREAMP
5V
GND
INT
①②③
AN
PCB-CONTROL
5V
GND
KSCAN-1
KSCAN-2
KSCAN-3
LED
RESET
①②③④⑤⑥⑦⑧
CF
LED①
5V②
CB
DY(R)
DY(G)
DY(B)
①②③④
H
V
RG
①
②
③ POWER ON/OFF
④ POWER-ON-TM
RF
RN
RE
RD
5V
GND
KSCAN-1
KSCAN-2
KSCAN-3
LED
RESET
5V
GND
INT
Y/C-SW
COMP-SW
PCB-μ-COM
Y-IN
GND
C-IN
GND
COMP-IN
R-IN
L-IN
PCB-TERMINAL
R-H①
②
R-V③
B-H④
B-V⑤
Vref⑥
GND⑦
RC
PCB-MAIN
H-PULSE ①
12V ②
V-PULSE ③
S-HV ④
V SAW ⑤
-12V ⑥
GND ⑦
H-D+ ⑧
⑨
H-D- ⑩
DA
55V(NON-REG)
ND
RH
① H-PULSE
②
③ V-PULSE
④ GND
⑤ ACL
⑥
⑦ H-OUT
⑧ V-OUT
⑨ V-SAW
⑩ X-PRO
PCB-PIP
PCB-SIDE-PIN
H-PULSE ①
②
V-PULSE ③
GND ④
ACL ⑤
⑥
H-OUT ⑦
V-OUT ⑧
V-SAW ⑨
X-PRO ⑩
DH
①②③④⑤⑥
①②③④
DT
DS
ND
15V
RJ
① 75V
②
600V
PCB-PCC
-PULSE
. BLK
. PARA
PCC
-12V
-5V
GND
-5V
-12V
75V①
②
DJ
RK
① AUDIO+B
② GND
600V
① +15V(NON-REG)
EXT-1
Y/C
V
L
CENTER-CH IN
EXT-2
V
L
TUNER OUT
V
L
MONITER OUT
V
L


PCB-MAIN
DY(R)
DY(G)
DY(B)
H
V
55V(NON-REG)
ND
15V
H-PULSE ①
12V ②
V-PULSE ③
S-HV ④
V SAW ⑤
-12V ⑥
GND ⑦
H-D+ ⑧
⑨
H-D- ⑩
DA
PCB-SIDE-PIN
H-PULSE ①
②
V-PULSE ③
GND ④
ACL ⑤
⑥
H-OUT ⑦
V-OUT ⑧
V-SAW ⑨
X-PRO ⑩
DH
DT
DS
PCB-PCC
H-PULSE
V. BLK
H. PARA
PCC
-12V
-5V
GND
+5V
+12V
DM
DL
75V ①
②
DJ
24V ①
GND ②
-24V ③
-15V(NON-REG) ④
GND ⑤
+15V(NON-REG) ⑥
DD
15V
GND
GND(DEFL)
1200V
HEATER
230V
DC
DF
DK
DP
DR
600V
10KV
SC
SF
SK
SP
SR
SM
200V
R
G
B
GND(SIG) ①
②
SQ
PCB-CRT(R)
RG
① ② ③ POWER ON/OFF
④ POWER-ON-TM
RH
① H-PULSE
②
③ V-PULSE
④ GND
⑤ ACL
⑥
⑦ H-OUT
⑧ V-OUT
⑨ V-SAW
⑩ X-PRO
RJ
① 75V
②
600V
RK
① AUDIO+B
② GND
600V
RL
① +15V(NON-REG)
② G
BOLD-EARTH
RF
5V
GND
KSCAN-1
KSCAN-2
KSCAN-3
LED
RESET
RN
5V
GND
INT
RE
Y/C-SW
COMP-SW
PCB-μ-COM
RD
Y-IN
GND
C-IN
GND
COMP-IN
R-IN
L-IN
PCB-TERMINAL
R-H ①
②
R-V ③
B-H ④
B-V ⑤
Vref ⑥
GND ⑦
RC
PCB-PIP
EXT-1
EXT-2
TUNER OUT
MONITER OUT
Y/C
V
CENTER-CH IN
L
SUB-WOOFER OUT
R
ANT B ①
+15V ②
RA
EXT-SP
(L)
(R)
+
-
R-OUT ①
GND ②
L-OUT ③
RP
PCB-SIGNAL
RM
GND
RQ
BOLD EARTH
PCB-CRT(G)
PCB-CRT(B)


H-PUL
V. BLK
H. PAR
PCC
DM
-12V
-5V
GND
+5V
+12V
DL
24V
GND
-24V
-15V(NON-REG)
GND
+15V(NON-REG)
DD
600V
RL
+15V(NON-REG)
G
BOLD-EARTH
CENTER-CH IN
SUB-WOOFER OUT
L
R
EXT-SP
(L)
(R)
PCB-SIGNAL
ANT B
+15V
RA
R-OUT
GND
L-OUT
RP
R
G
B
GND
RM
GND
RQ
BOLD EARTH
15V
GND
GND(DEFL)
1200V
HEATER
GND
230V
GND
DC
DF
DK
DP
DR
600V
10KV
SC
SF
SK
SP
SR
SM
15V
GND
GND(DEFL)
1200V
HEATER
GND
200V
GND
R
G
B
GND
10KV
PCB-CRT(R)
GND(SIG)
SQ
SN
1200V
10KV
SN
1200V
1200V
PCB-CRT(G)
SC
1200V
PCB-CRT(B)
G
B
GND
15V
230V
SL
SL
G
B
GND
15V
230V
R
GND
+15V
230V
SG
SG
R
GND
+15V
230V
HEATER
GND
SE
SE
HEATER
GND
HEATER
GND
SH
SH
HEATER
GND
SU
BOLD EARTH
SU
SR
BOLD EARTH
SR
G2
G1
HEATER
KATHODE
GND
SA
F-Mg
DY
SUB-DY
H. V
R
G
B
X-SHIELD PLATE



11
12
13
14
15
16
17
18
BB
① LED
② 5V
PCB-DISPLAY
PCB-FRONT
Y/C-SW
COMP-SW
FE
Y-OUT
GND
C-OUT
GND
COMP-OUT
R-OUT
L-OUT
FD
SUB-DY(R)
VU
SUB-DY(B)
VY
Ⓔ
H
V
PCB-CONV
R-H
R-V
B-H
B-V
Vref
GND
RC
VC
VR
F-Mg(R)
VG
F-Mg(G)
VB
F-Mg(B)
VA
H-PULSE
12V
V-PULSE
S-HV
V SAW
-12V
GND
H-D+
H-D-
Ⓥ
+24V
GND

SCHEMATIC DIAGRAM

MODELS : VS-40VA2
VS-45VA1
VS-45VA2
VS-50VA1
VS-50VA2
VS-60VA2
VS-45VA2CA
VS-50VA2CA
VS-60VA2CA

NOTE 1:

1. The unit of resistance is "ohm" with no symbol.
   Accordingly, K = 1000 ohms
   M = 1000K ohms.
2. The wattage of resistors, if not specifically designated, is 1/4 watt.
3. **Resistors, if not specifically designated, are carbon resistors.**
4. **The marks of resistors are as follows:**

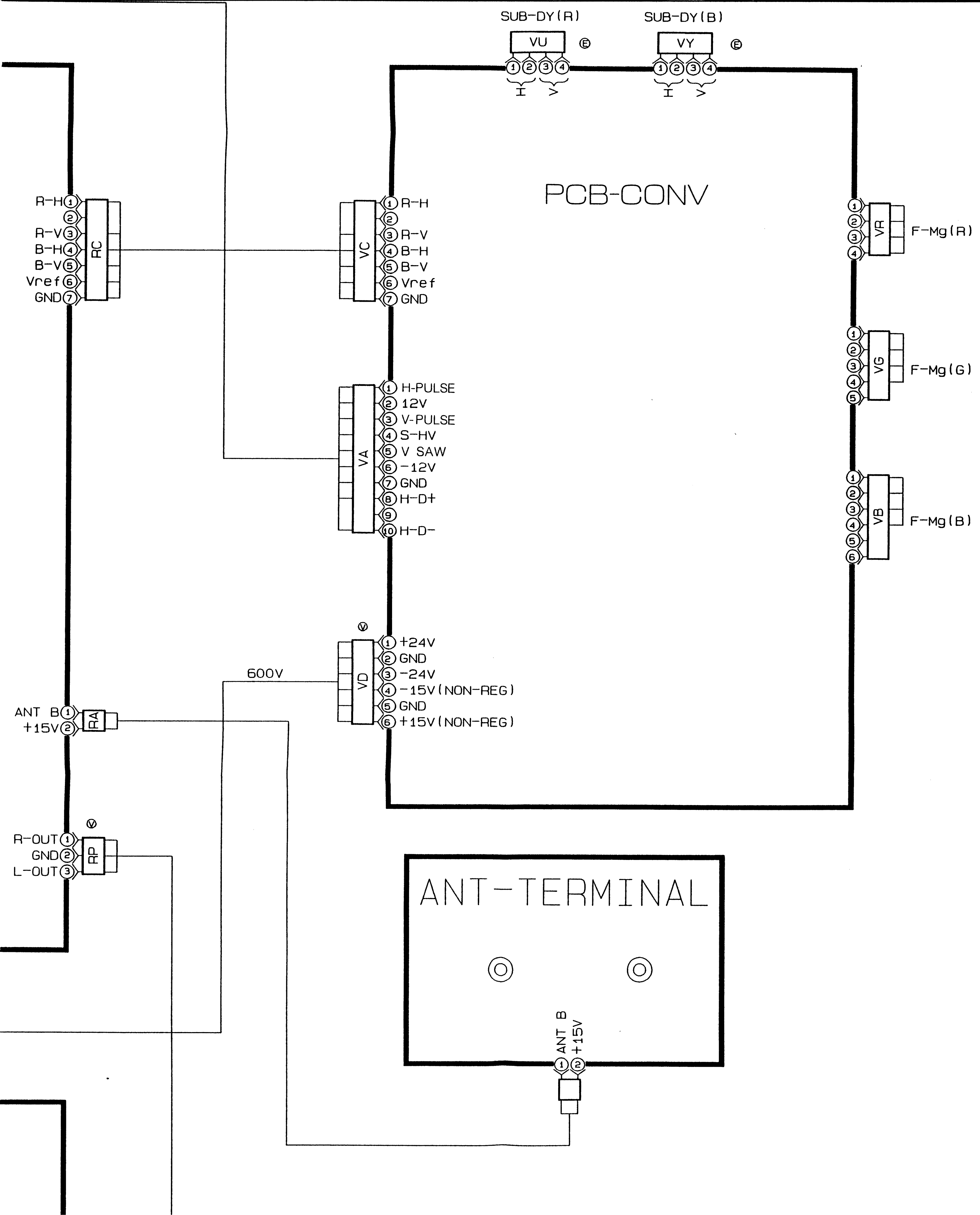
CE	:	Cemented resistor
MB	:	Metal oxide film resistor (type B)
MPC	:	Metal plate cement resistor.
CM	:	Cement metal oxide film resistor.
Ⓢ	:	Fixed composition resistor
Ⓦ	:	Wire wound resistor
Ⓜ	:	Metal film resistor

5. The tolerance of resistor value is:
   Not specified=±5%, K=±10% M=±20%
6. The unit of capacitance, if not specifically designated, is:
   a) μF, for numbers less than 1
   b) PF, for numbers more than 1
7. Capacitors, if not specifically designated are Ceramic capacitors except electrolytic capacitors.
8. The marks of capacitors are as follows:

ALM	:	Aluminus electrolytic capacitor
MF	:	Polyester capacitor
PP	:	Polypropylene film capacitor
TANT	:	Tantalum capacitor
TF	:	Twin film capacitor.
MF.PP	:	Polyester polypropylene film capacitor.
MPP	:	Metallize plastic film capacitor.
NP	:	Non polarized electrolytic capacitor.
SC	:	Semi conductor capacitor.
PS	:	Styrol capacitor.
╪	:	Electrolytic capacitor

9. The DC working voltage of capacitor, if not specifically designated is: 50V
10. The tolerance of capacitor value, if not specifically designated is: ±10% for polyester capacitor
    ±5% for ceramic capacitor
    and J =±5% K =±10% M =±20% $P = {}^{+100\%}_{-\ \ 0\%}$
    C =±0.25PF D = ±0.5PF F =±1PF $Z = {}^{+80\%}_{-20\%}$ N=±30%

SPECIFIC SYMBOL	
Zener Diode	Varistor
Varicap	Crystal unit
Posistor	Air Gap
	Part (resistor) attached



watt.

3. Resistors, if not specifically designated, are carbon resistors.
4. The marks of resistors are as follows:

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MB : Metal oxide film resistor (type B)
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CM : Cement metal oxide film resistor.
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Ⓦ : Wire wound resistor
Ⓜ : Metal film resistor

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Not specified=±5%, K=±10% M=±20%
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TANT : Tantalum capacitor
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MF.PP : Polyester polypropylene film capacitor.
MPP : Metallize plastic film capacitor.
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PS : Styrol capacitor.
╪ : Electrolytic capacitor

9. The DC working voltage of capacitor, if not specifically designated is: 50V
10. The tolerance of capacitor value, if not specifically designated is: ±10% for polyester capacitor
±5% for ceramic capacitor
and J =±5% K =±10% M =±20% $P = {}^{+100\%}_{-\ \ 0\%}$
C =±0.25PF D = ±0.5PF F =±1PF $Z = {}^{+80\%}_{-20\%}$ N=±30%

SPECIFIC SYMBOL

Zener Diode	Varistor
Varicap	Crystal unit
Posistor	Air Gap
Thermistor	Part (resistor) attached on the copper-foil side of PCB
Fusible Resistor	Ceramic filter

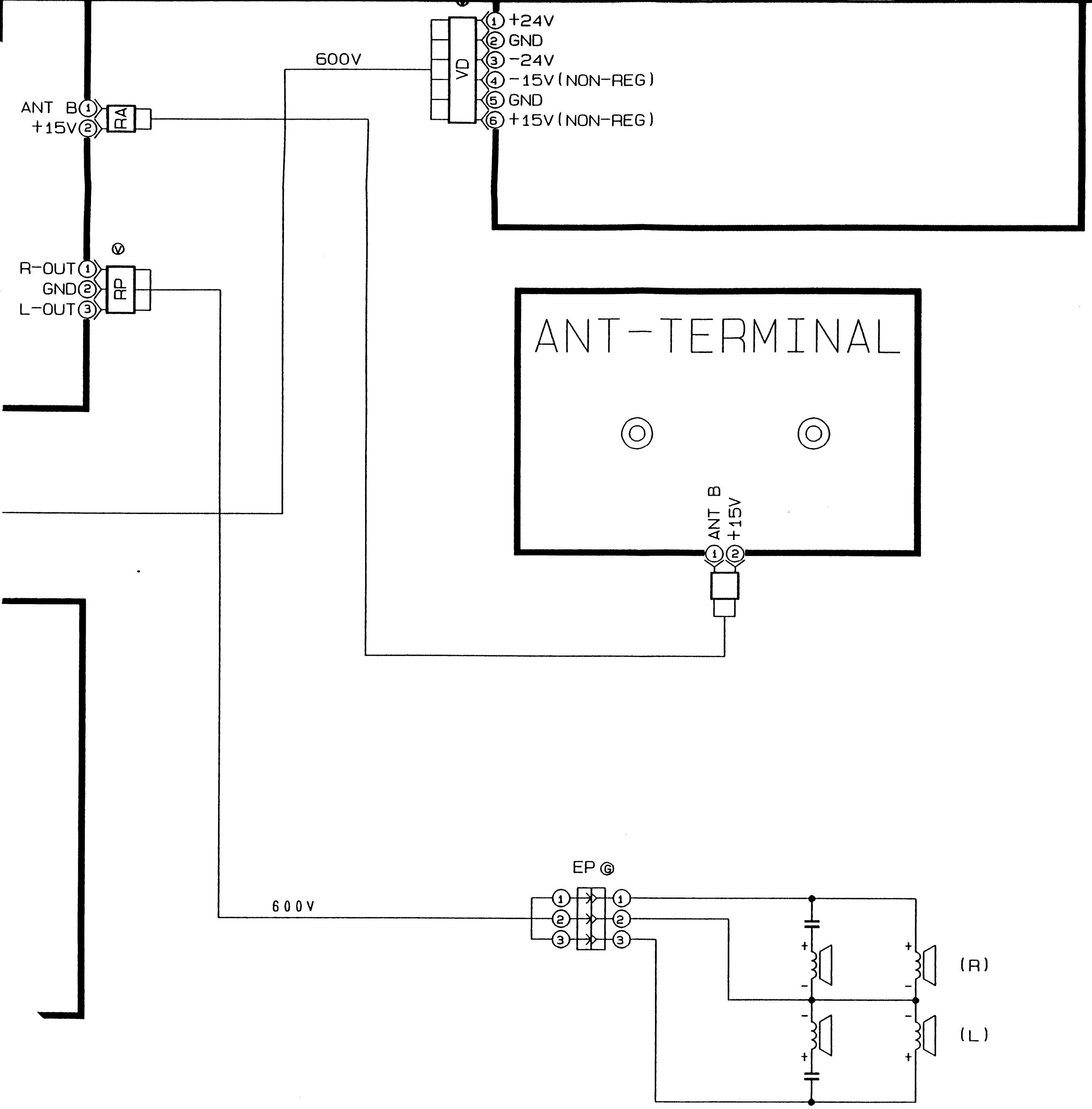
NOTE 2:

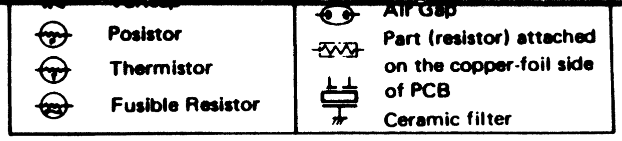
1. DC voltages were measured from points indicated to the circuir ground with a digital voltmeter.
Line voltage at 120V AC on signal applied.
2. Waveforms were taken with NTSC color bar signal.
3. This is a basic schematic diagram. Some sets may be subject to modification according to engineering improvement.

SHADED COMPONENTS HAVE SPECIAL CHARACTERISTICS IMPORTANT TO SAFETY. BEFORE REPLACING ANY OF THESE COMPONENTS READ CAREFULLY THE PRODUCT SAFETY NOTICE IN THE SERVICE MANUAL. DON'T DEGRADE THE SAFETY OF THE RECEIVERS THROUGH IMPROPER SERVICING.

SERVICE MAN WARNING
X-RADIATION PRECAUTION
THIS PRODUCT INCLUDES CRITICAL ELECTRICAL AND MECHANICAL PARTS ESSENTIAL FOR X-RADIATION PROTECTION.
TO AVOID POSSIBLE EXPOSURE TO X-RADIATION TAKE X-RADIATION PROTECTIVE MEASURES FOR PERSONNEL DURING SERVICING.
SEE SERVICE INSTRUCTIONS FOR SPECIFIED REPLACEMENT PARTS AND SERVICE ADJUSTMENTS.

LES ELEMENTS CONSTITUTIFS HACHURES ONT DES CARACTERISTIQUES SPECIALES IMPORTANTES A LA SECURITE. AVANT DE REMPLACER L'UN OU L'AUTRE DE CES ELEMENTS, LIRE ATTENTIVEMENT LA NOTICE


VD
①+24V
②GND
③−24V
④−15V(NON-REG)
⑤GND
⑥+15V(NON-REG)
600V
ANT B①
+15V②
RA
R-OUT①
GND②
L-OUT③
RP
ANT-TERMINAL
ANT B
+15V
①
②
600V
EP
(R)
(L)


Posistor
Thermistor
Fusible Resistor
Air Gap
Part (resistor) attached on the copper-foil side of PCB
Ceramic filter

NOTE 2:

1. DC voltages were measured from points indicated to the circuir ground with a digital voltmeter.
   Line voltage at 120V AC on signal applied.
2. Waveforms were taken with NTSC color bar signal.
3. This is a basic schematic diagram. Some sets may be subject to modification according to engineering improvement.

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SEE SERVICE INSTRUCTIONS FOR SPECIFIED REPLACEMENT PARTS AND SERVICE ADJUSTMENTS.

LES ELEMENTS CONSTITUTIFS HACHURES ONT DES CARACTERISTIQUES SPECIALES IMPORTANTES A LA SECURITE. AVANT DE REMPLACER L'UN OU L'AUTRE DE CES ELEMENTS, LIRE ATTENTIVEMENT LA NOTICE DE SECURITE D'APPAREIL DANS LE MANUEL DE SERVICE.

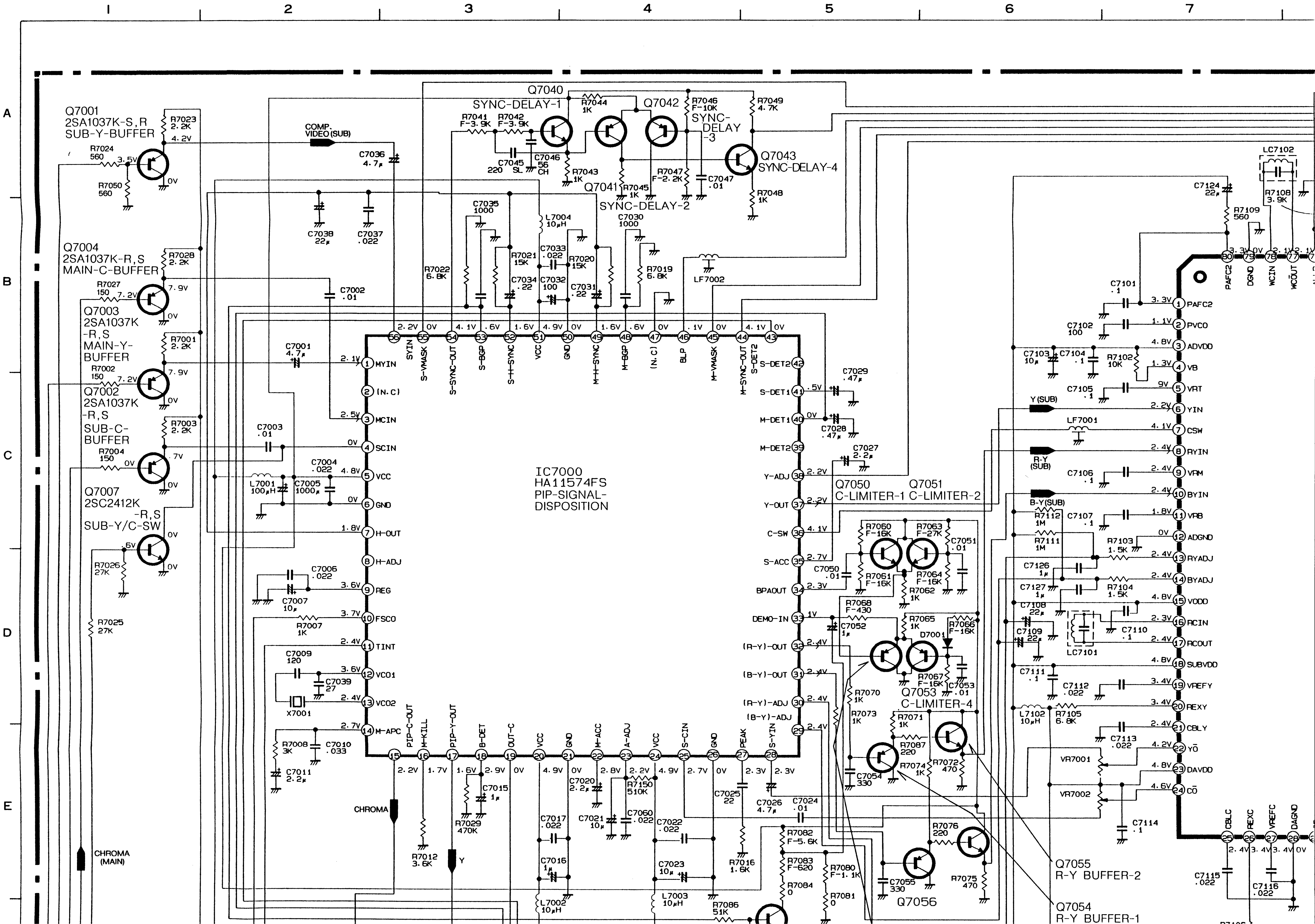
NE PAS NUIRE A LA SECURITE DES RECEPTEURS PAR SERVICE NON APPROPRIE.

AVERTISSEMENT AU DEPANNEUR

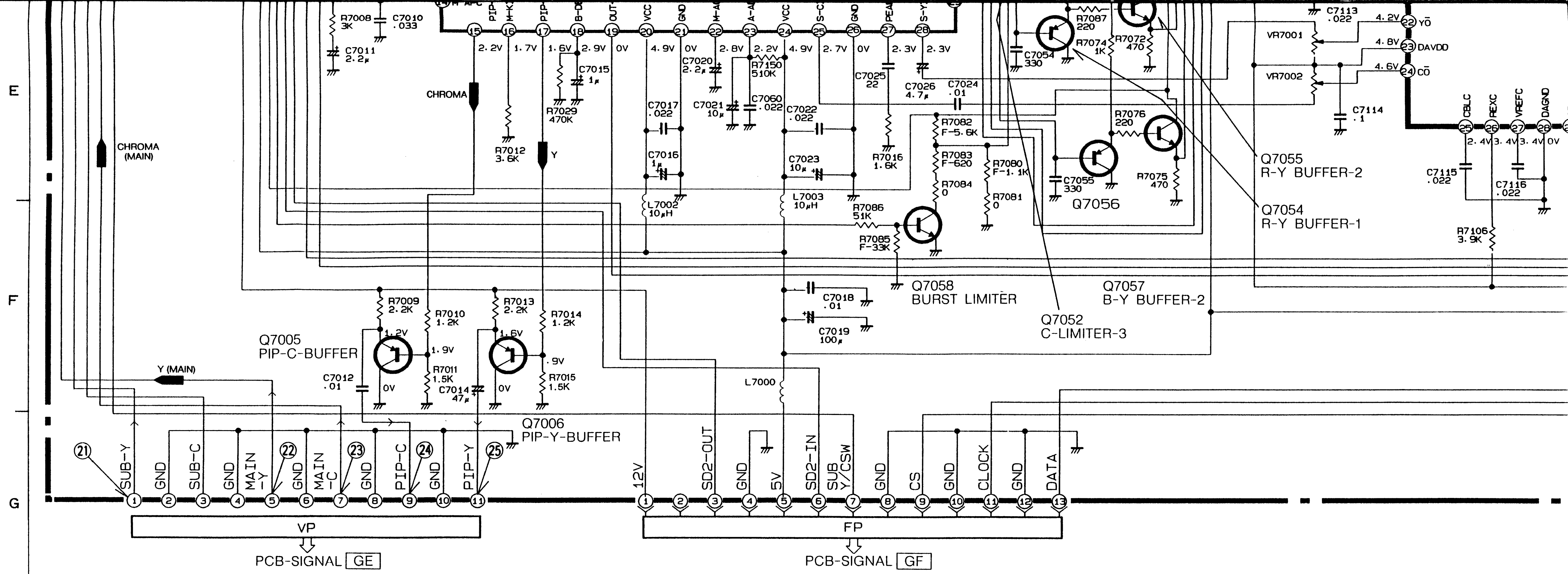
PRECAUTIONS CONTRE LA RADIATION AUX RAYONS X LE PRESENT APPAREIL COMPORTE DES PIECES IMPORTANTES ELECTROMECANIQUES POUR LA PROTECTION CONTRE LA RADIATION AUX RAYONS X. POUR EVITER TOUTE EXPOSITION EVENTUELLE A LA RADIATION AUX RAYONS X, PRENDRE LES MESURES DE PROTECTION AU COURS DU DEPANNAGE. VOIR LES INSTRUCTIONS D'ENTRETIEN POUR LES PIECES DE REMPLACEMENT SPECIFIEES ET LES REGLAGES D'ENTRETIEN.

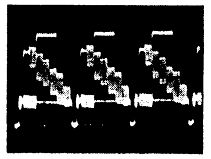
Printed in U.S.A.

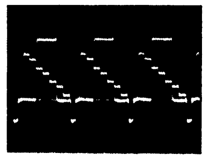
VS-40VA2
VS-45VA1
VS-45VA2
VS-50VA1
VS-50VA2
VS-60VA2
VS-45VA2CA
VS-50VA2CA
VS-60VA2CA(1/6)

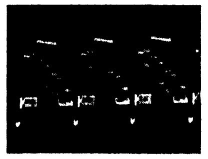


1
2
3
4
5
6
7
A
B
C
D
E
Q7001
2SA1037K-S,R
SUB-Y-BUFFER
Q7004
2SA1037K-R,S
MAIN-C-BUFFER
Q7003
2SA1037K
-R,S
MAIN-Y-BUFFER
Q7002
2SA1037K
-R,S
SUB-C-BUFFER
Q7007
2SC2412K
-R,S
SUB-Y/C-SW
Q7040
SYNC-DELAY-1
Q7042
SYNC-DELAY-3
Q7041
SYNC-DELAY-2
Q7043
SYNC-DELAY-4
COMP. VIDEO (SUB)
IC7000
HA11574FS
PIP-SIGNAL-DISPOSITION
Q7050
C-LIMITER-1
Q7051
C-LIMITER-2
Q7053
C-LIMITER-4
Q7056
Q7055
R-Y BUFFER-2
Q7054
R-Y BUFFER-1
D7001
X7001
LF7001
LF7002
LC7101
LC7102
L7001 100μH
L7002 10μH
L7003 10μH
L7004 10μH
L7102 10μH
VR7001
VR7002
CHROMA
CHROMA (MAIN)
Y
Y (SUB)
R-Y (SUB)
B-Y (SUB)
1 MYIN
2 (N.C)
3 MCIN
4 SCIN
5 VCC
6 GND
7 H-OUT
8 H-ADJ
9 REG
10 FSCO
11 TINT
12 VCO1
13 VCO2
14 M-APC
15 PIP-C-OUT
16 M-KILL
17 PIP-Y-OUT
18 B-DET
19 OUT-C
20 VCC
21 GND
22 M-ACC
23 A-ADJ
24 VCC
25 S-CIN
26 GND
27 PEAK
28 S-YIN
29 (B-Y)-ADJ
30 (R-Y)-ADJ
31 (B-Y)-OUT
32 (R-Y)-OUT
33 DEMO-IN
34 BPAOUT
35 S-ACC
36 C-SW
37 Y-OUT
38 Y-ADJ
39 M-DET2
40 M-DET1
41 S-DET1
42 S-DET2
43 S-DET2
44 M-SYNC-OUT
45 M-VMASK
46 BLP
47 (N.C)
48 M-BGP
49 M-H-SYNC
50 GND
51 VCC
52 S-H-SYNC
53 S-BGP
54 S-SYNC-OUT
55 S-VMASK
56 SYIN
1 PAFC2
2 PVCO
3 ADVDD
4 VB
5 VRT
6 YIN
7 CSW
8 RYIN
9 VRM
10 BYIN
11 VRB
12 ADGND
13 RYADJ
14 BYADJ
15 VODD
16 RCIN
17 RCOUT
18 SUBVDD
19 VREFY
20 REXY
21 CBLY
22 YO
23 DAVDD
24 CO
25 CBLC
26 REXC
27 VREFC
28 DAGND
80 PAFC2
79 DGND
78 WCIN
77 WCOUT

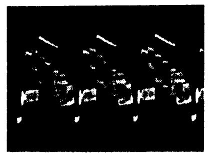

E
F
G
R7008
3K
C7010
.033
C7011
2.2μ
CHROMA (MAIN)
CHROMA
Y
15
16
17
18
19
20
21
22
23
24
25
26
27
28
PIP-
M-K
PIP-
B-D
OUT
VCC
GND
M-A
A-A
VCC
S-C
GND
PEA
S-Y
2.2V
1.7V
1.6V
2.9V
0V
4.9V
0V
2.8V
2.2V
4.9V
2.7V
0V
2.3V
2.3V
C7015
1μ
R7029
470K
R7012
3.6K
C7020
2.2μ
R7150
510K
C7017
.022
C7021
10μ
C7060
.022
C7022
.022
C7025
22
C7026
4.7μ
C7024
.01
C7016
1μ
L7002
10μH
C7023
10μ
L7003
10μH
R7016
1.6K
R7082
F-5.6K
R7083
F-620
R7084
0
R7080
F-1.1K
R7081
0
R7086
51K
R7085
F-33K
Q7058
BURST LIMITER
C7018
.01
C7019
100μ
L7000
R7087
220
R7074
1K
R7072
470
C7054
330
R7076
220
C7055
330
Q7056
R7075
470
Q7055
R-Y BUFFER-2
Q7054
R-Y BUFFER-1
Q7057
B-Y BUFFER-2
Q7052
C-LIMITER-3
C7113
.022
VR7001
VR7002
C7114
.1
4.2V
4.8V
4.6V
22 YŌ
23 DAVDD
24 CŌ
25 CBLC
26 REXC
27 VREFC
28 DAGND
2.4V
3.4V
3.4V
0V
C7115
.022
C7116
.022
R7106
3.9K
R7009
2.2K
R7010
1.2K
R7013
2.2K
R7014
1.2K
Q7005
PIP-C-BUFFER
1.2V
1.9V
1.6V
.9V
C7012
.01
0V
R7011
1.5K
C7014
47μ
0V
R7015
1.5K
Q7006
PIP-Y-BUFFER
Y (MAIN)
㉑
㉒
㉓
㉔
㉕
1 SUB-Y
2 GND
3 SUB-C
4 GND
5 MAIN -Y
6 GND
7 MAIN -C
8 GND
9 PIP-C
10 GND
11 PIP-Y
VP
PCB-SIGNAL GE
1 12V
2
3 SD2-OUT
4 GND
5 5V
6 SD2-IN
7 SUB Y/CSW
8 GND
9 CS
10 GND
11 CLOCK
12 GND
13 DATA
FP
PCB-SIGNAL GF


㉑1.0Vp-p(H)

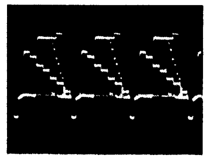

㉒0.9Vp-p(H)


㉓1.0Vp-p(H)

(PIP)


㉔0.9Vp-p(H)

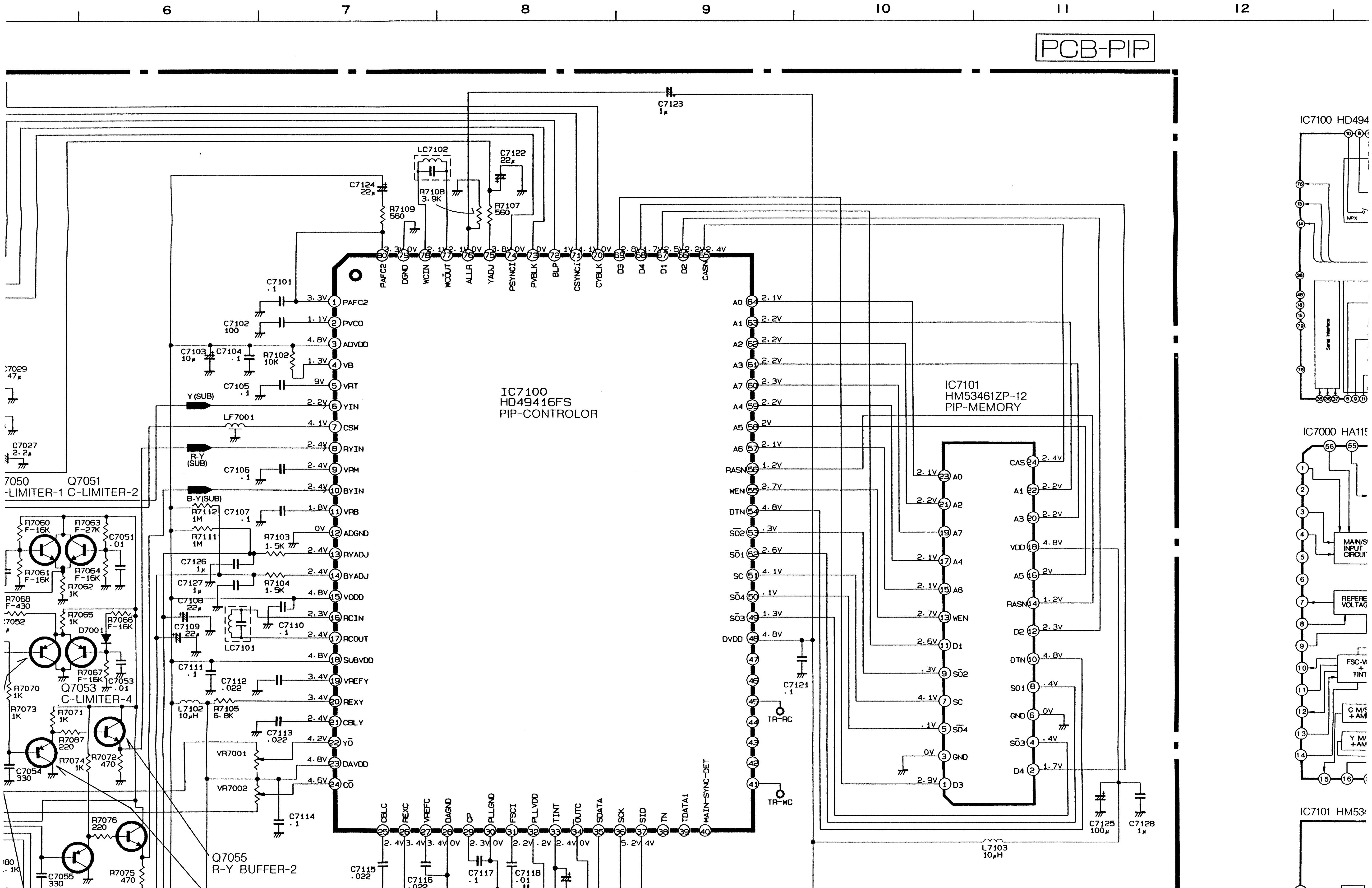
(PIP)

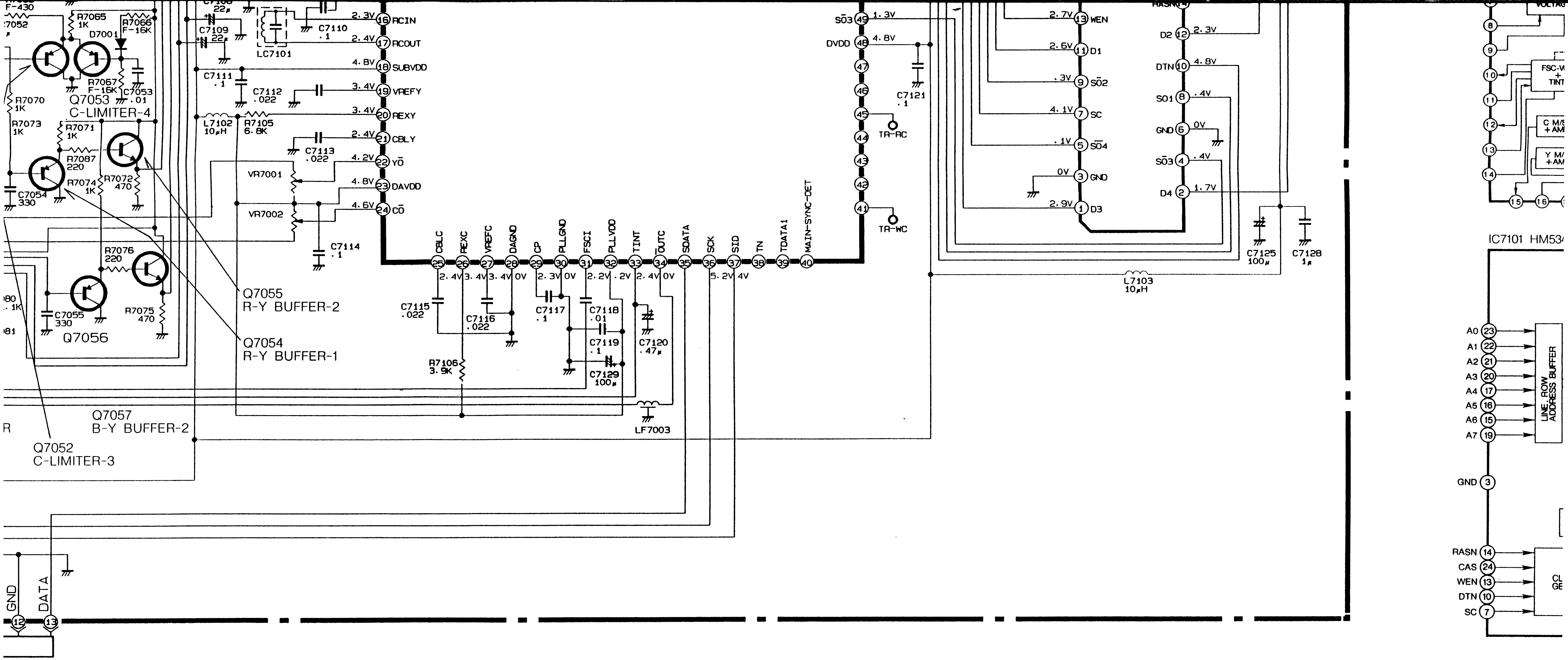

㉕0.9Vp-p(H)

H

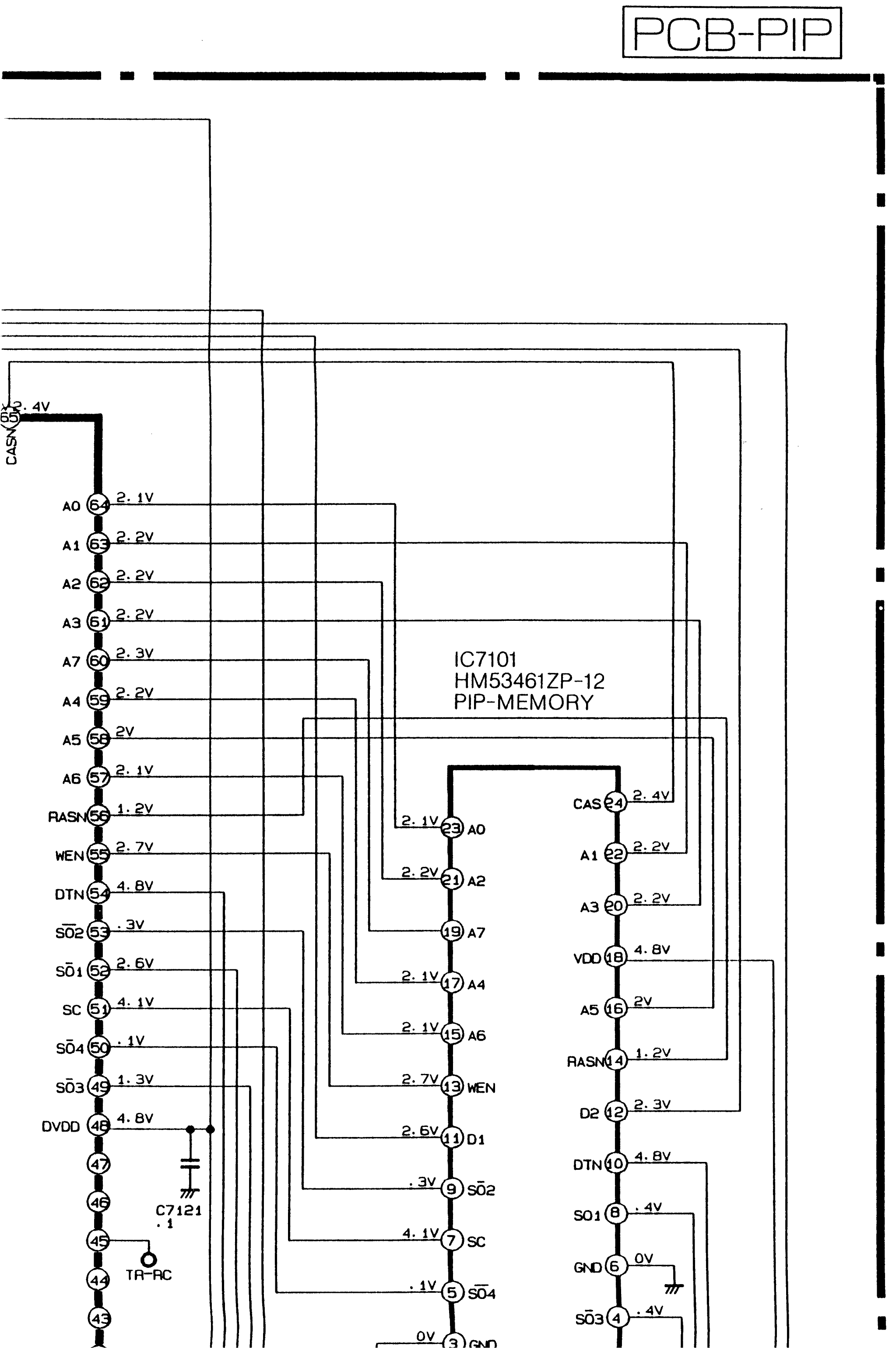
I

J

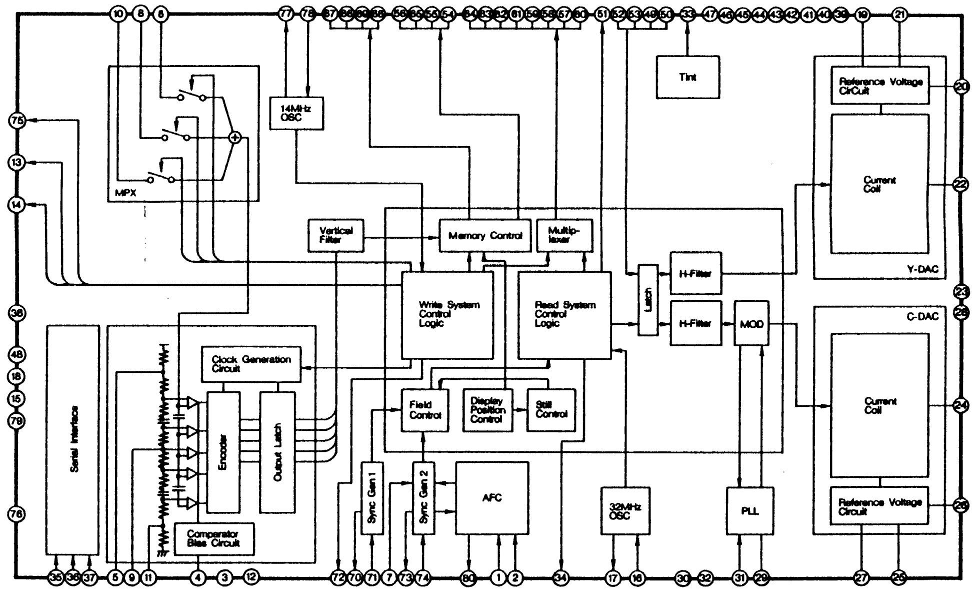

6
7
8
9
10
11
12
PCB-PIP
IC7100
HD49416FS
PIP-CONTROLOR
IC7101
HM53461ZP-12
PIP-MEMORY
IC7100 HD494
IC7000 HA115
IC7101 HM534
Serial Interface
MPX
MAIN/S INPUT CIRCUI
REFERE VOLTAG
FSC-V + TINT
C M/S + AM
Y M/ + AM
C7123 1μ
LC7102
C7122 22μ
C7124 22μ
R7108 3.9K
R7109 560
R7107 560
C7101 .1
C7102 100
C7103 10μ
C7104 .1
R7102 10K
C7105 .1
Y(SUB)
LF7001
R-Y (SUB)
C7106 .1
B-Y(SUB)
R7112 1M
C7107 .1
R7111 1M
R7103 1.5K
C7126 1μ
C7127 1μ
R7104 1.5K
C7108 22μ
C7109 22μ
C7110 .1
LC7101
C7111 .1
C7112 .022
L7102 10μH
R7105 6.8K
C7113 .022
VR7001
VR7002
C7114 .1
C7115 .022
C7116 .022
C7117 .1
C7118 .01
C7121 .1
TR-RC
TR-WC
C7125 100μ
C7128 1μ
L7103 10μH
PAFC2
PVCO
ADVDD
VB
VRT
YIN
CSW
RYIN
VRM
BYIN
VRB
ADGND
RYADJ
BYADJ
VDDD
RCIN
RCOUT
SUBVDD
VREFY
REXY
CBLY
YO
DAVDD
CO
CBLC
REXC
VREFC
DAGND
CP
PLLGND
FSCI
PLLVDD
TINT
OUTC
SDATA
SCK
SID
TN
TDATA1
MAIN-SYNC-DET
DGND
WCIN
WCOUT
ALLR
YADJ
PSYNCI
PVBLK
BLP
CSYNCI
CYBLK
D3
D4
D1
D2
CASN
A0
A1
A2
A3
A7
A4
A5
A6
RASN
WEN
DTN
SO2
SO1
SC
SO4
SO3
DVDD
CAS
VDD
D2
DTN
GND
D4
D3
7029 47μ
C7027 2.2μ
7050
Q7051
-LIMITER-1 C-LIMITER-2
R7060 F-16K
R7063 F-27K
C7051 .01
R7061 F-16K
R7064 F-16K
R7062 1K
R7068 F-430
7052
R7065 1K
R7066 F-16K
D7001
R7067 F-16K
C7053 .01
Q7053
C-LIMITER-4
R7070 1K
R7073 1K
R7071 1K
R7087 220
R7074 1K
R7072 470
C7054 330
R7076 220
Q7055
R-Y BUFFER-2
C7055 330
R7075 470
080 1K
3.3V
1.1V
4.8V
1.3V
9V
2.2V
4.1V
2.4V
1.8V
0V
2.3V
4.6V
4.2V
2.1V
2.7V
2.6V
.3V
.1V
1.2V
2.5V
2.9V
3.8V
5.2V


F-430
R7065
1K
R7066
F-16K
7052
D7001
R7067
F-16K
C7053
.01
R7070
1K
Q7053
C-LIMITER-4
R7073
1K
R7071
1K
R7087
220
R7074
1K
R7072
470
C7054
330
R7076
220
C7055
330
Q7056
R7075
470
Q7055
R-Y BUFFER-2
Q7054
R-Y BUFFER-1
Q7057
B-Y BUFFER-2
Q7052
C-LIMITER-3
C7109
22μ
LC7101
C7110
.1
C7111
.1
C7112
.022
L7102
10μH
R7105
6.8K
C7113
.022
VR7001
VR7002
C7114
.1
2.3V 16 RCIN
2.4V 17 RCOUT
4.8V 18 SUBVDD
3.4V 19 VREFY
3.4V 20 REXY
2.4V 21 CBLY
4.2V 22 YO
4.8V 23 DAVDD
4.6V 24 CO
25 CBLC
26 REXC
27 VREFC
28 DAGND
29 CP
30 PLLGND
31 FSCI
32 PLLVDD
33 TINT
34 OUTC
35 SDATA
36 SCK
37 SID
38 TN
39 TDATA1
40 MAIN-SYNC-DET
2.4V 3.4V 3.4V 0V 2.3V 0V 2.2V .2V 2.4V 0V 5.2V 4V
C7115
.022
C7116
.022
C7117
.1
C7118
.01
C7119
.1
C7129
100μ
C7120
.47μ
R7106
3.9K
LF7003
SO3 49 1.3V
DVDD 48 4.8V
47
46
45 TR-RC
44
43
42
41 TR-WC
C7121
.1
2.7V 13 WEN
2.6V 11 D1
.3V 9 SO2
4.1V 7 SC
.1V 5 SO4
0V 3 GND
2.9V 1 D3
RASN 14
D2 12 2.3V
DTN 10 4.8V
SO1 8 .4V
GND 6 0V
SO3 4 .4V
D4 2 1.7V
C7125
100μ
C7128
1μ
L7103
10μH
GND
DATA
12
13
8
9
10
11
12
13
14
15
16
VOLTAG
FSC-V
+
TINT
C M/S
+AM
Y M/
+AM
IC7101 HM53
A0 23
A1 22
A2 21
A3 20
A4 17
A5 16
A6 15
A7 19
LINE, ROW ADDRESS BUFFER
GND 3
RASN 14
CAS 24
WEN 13
DTN 10
SC 7
CL
GE

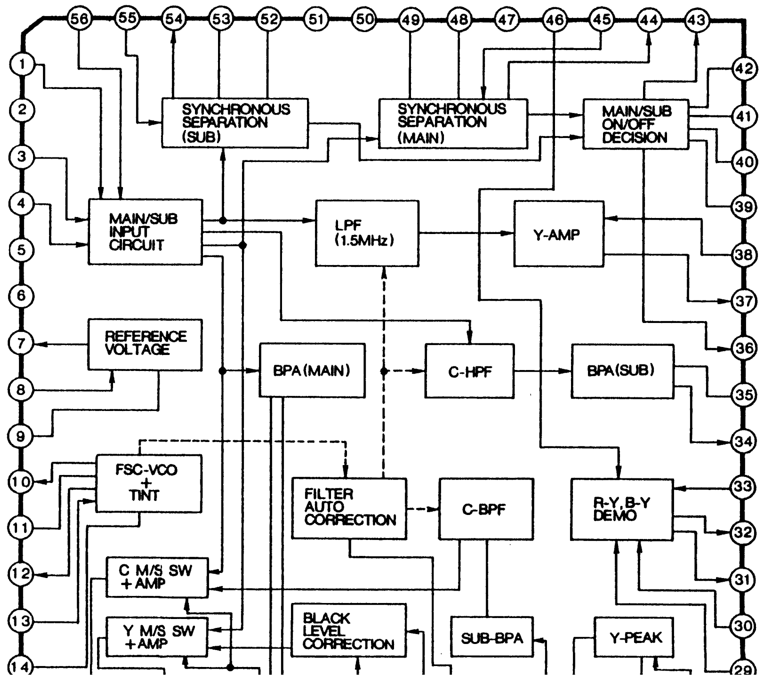
9 10 11 12 13 14 15 16

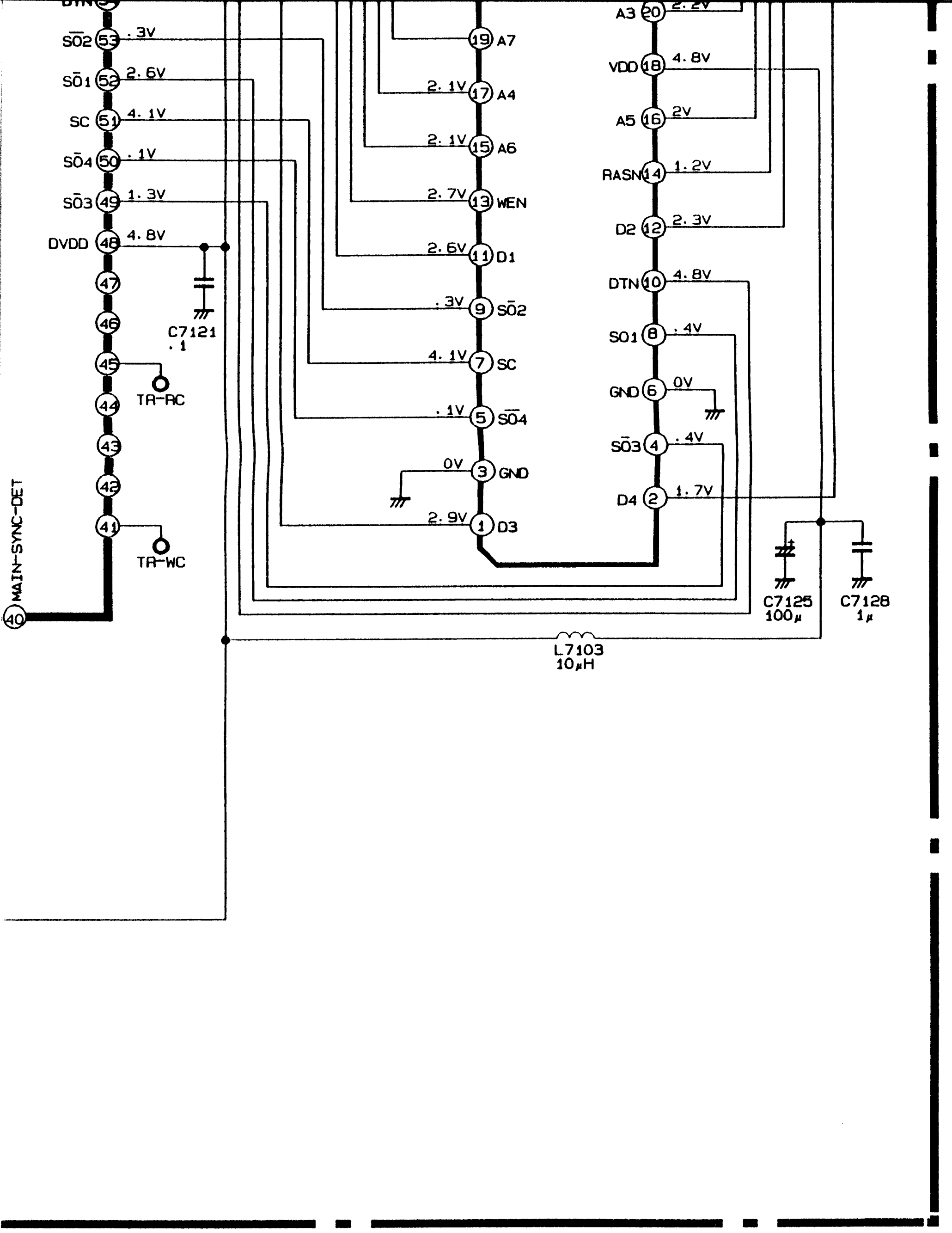

PCB-PIP
IC7101
HM53461ZP-12
PIP-MEMORY
CASN
A0
A1
A2
A3
A7
A4
A5
A6
RASN
WEN
DTN
SŌ2
SŌ1
SC
SŌ4
SŌ3
DVDD
TR-RC
C7121
.1
2.1V
2.2V
2.2V
2.2V
2.3V
2.2V
2V
2.1V
1.2V
2.7V
4.8V
.3V
2.6V
4.1V
.1V
1.3V
4.8V
CAS
A1
A3
VDD
A5
RASN
D2
DTN
SO1
GND
SŌ3
2.4V
2.2V
2.2V
4.8V
2V
1.2V
2.3V
4.8V
.4V
0V
.4V
A0
A2
A7
A4
A6
WEN
D1
SŌ2
SC
SŌ4
GND
0V

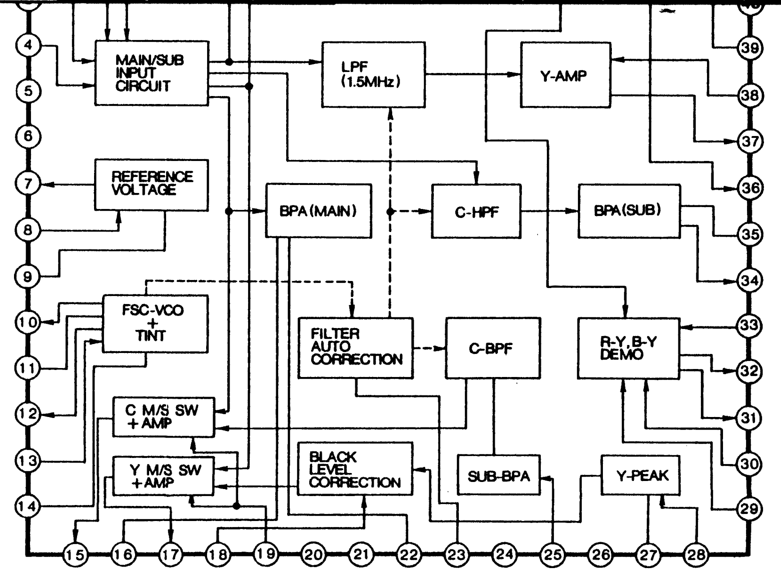
IC7100 HD49416FS


MPX
14MHz OSC
Tint
Reference Voltage CirCuit
Current Coil
Y-DAC
C-DAC
Current Coil
Reference Voltage Circuit
Vertical Filter
Memory Control
Multip-lexer
Write System Control Logic
Read System Control Logic
Latch
H-Filter
H-Filter
MOD
Serial Interface
Clock Generation Circuit
Encoder
Output Latch
Comparator Bias Circuit
Field Control
Display Position Control
Still Control
Sync Gen 1
Sync Gen 2
AFC
32MHz OSC
PLL

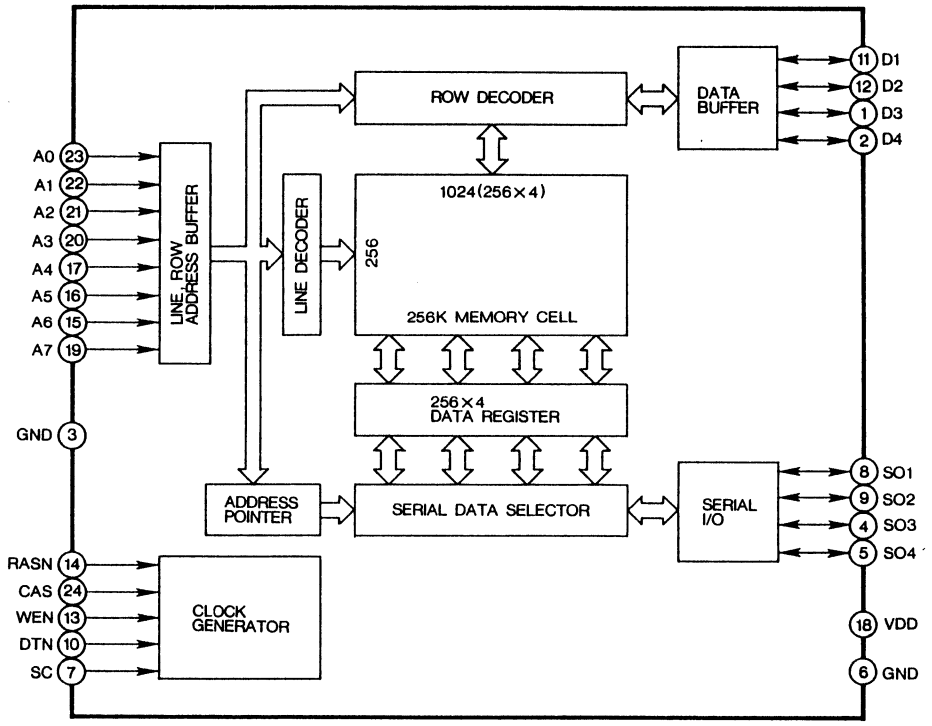
IC7000 HA11574FS

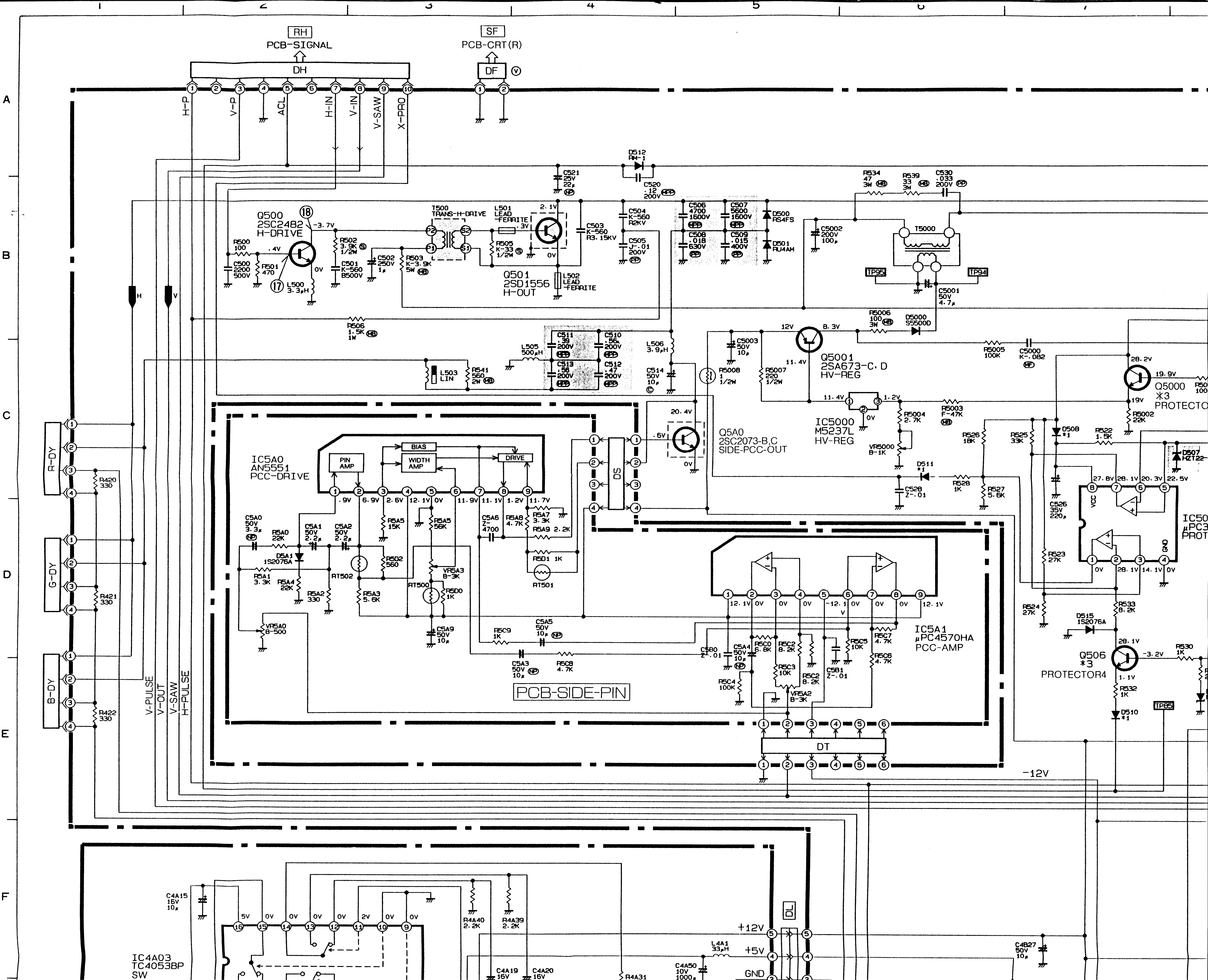

SYNCHRONOUS SEPARATION (SUB)
SYNCHRONOUS SEPARATION (MAIN)
MAIN/SUB ON/OFF DECISION
MAIN/SUB INPUT CIRCUIT
LPF (1.5MHz)
Y-AMP
REFERENCE VOLTAGE
BPA(MAIN)
C-HPF
BPA(SUB)
FSC-VCO + TINT
FILTER AUTO CORRECTION
C-BPF
R-Y, B-Y DEMO
C M/S SW + AMP
Y M/S SW + AMP
BLACK LEVEL CORRECTION
SUB-BPA
Y-PEAK


SO2 53 .3V
SO1 52 2.6V
SC 51 4.1V
SO4 50 .1V
SO3 49 1.3V
DVDD 48 4.8V
47
46
45
44
43
42
41
40 MAIN-SYNC-DET
C7121 .1
TR-RC
TR-WC
19 A7
2.1V 17 A4
2.1V 15 A6
2.7V 13 WEN
2.6V 11 D1
.3V 9 SO2
4.1V 7 SC
.1V 5 SO4
0V 3 GND
2.9V 1 D3
A3 20 2.2V
VDD 18 4.8V
A5 16 2V
RASN 14 1.2V
D2 12 2.3V
DTN 10 4.8V
SO1 8 .4V
GND 6 0V
SO3 4 .4V
D4 2 1.7V
C7125 100μ
C7128 1μ
L7103 10μH

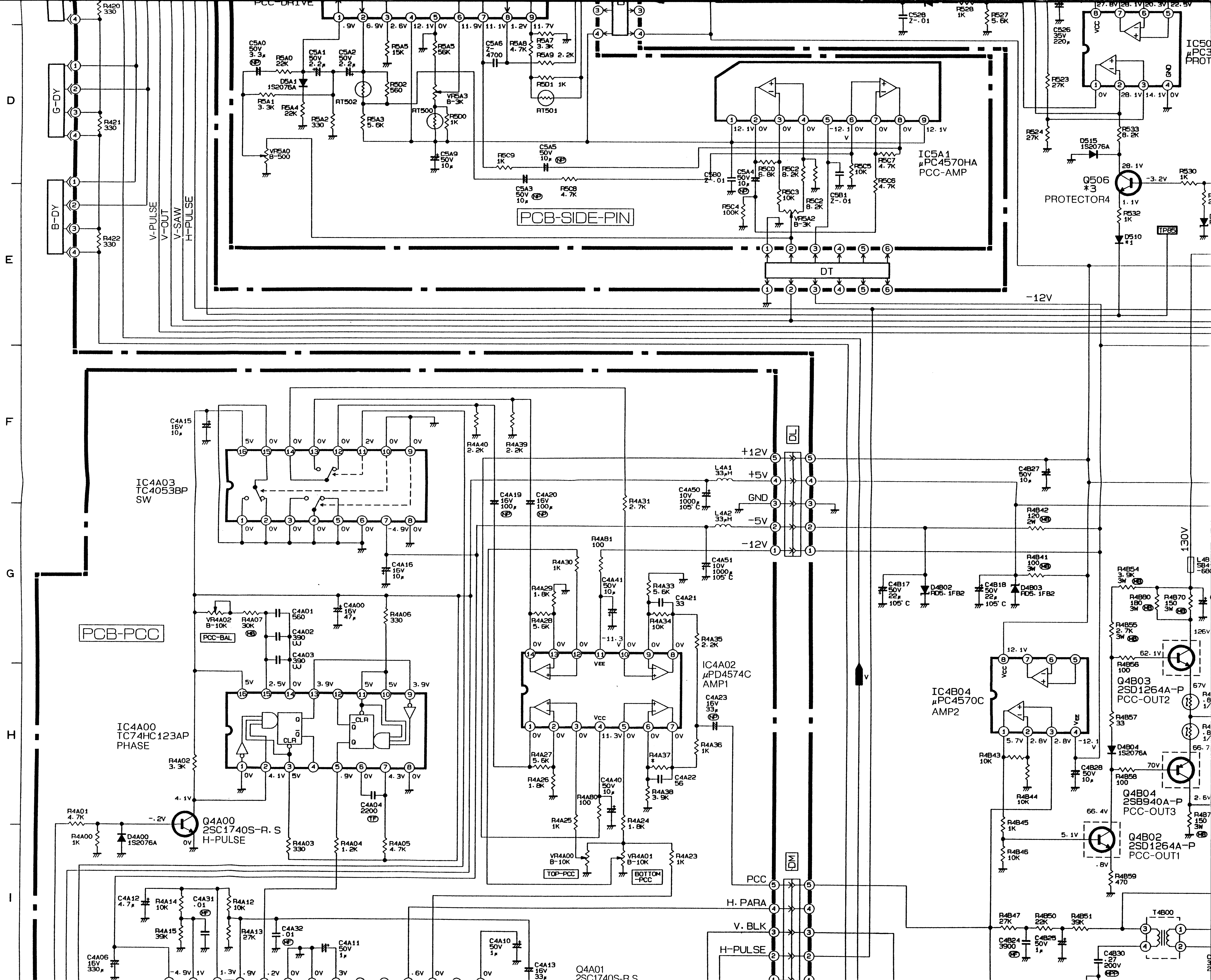

MAIN/SUB INPUT CIRCUIT
LPF (1.5MHz)
Y-AMP
REFERENCE VOLTAGE
BPA(MAIN)
C-HPF
BPA(SUB)
FSC-VCO + TINT
FILTER AUTO CORRECTION
C-BPF
R-Y,B-Y DEMO
C M/S SW + AMP
Y M/S SW + AMP
BLACK LEVEL CORRECTION
SUB-BPA
Y-PEAK
4 5 6 7 8 9 10 11 12 13 14
15 16 17 18 19 20 21 22 23 24 25 26 27 28
29 30 31 32 33 34 35 36 37 38 39

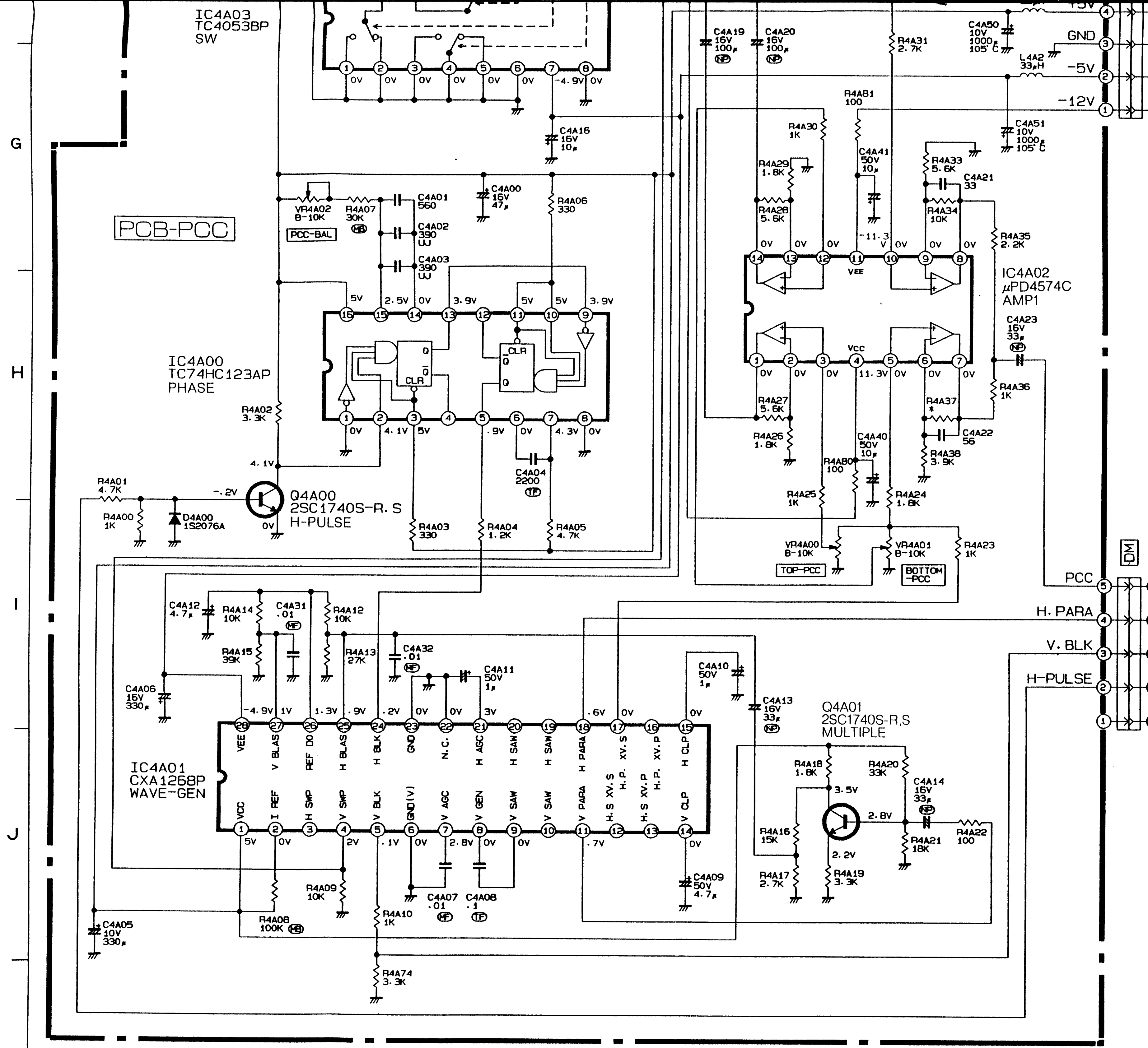
IC7101 HM53461ZP-12

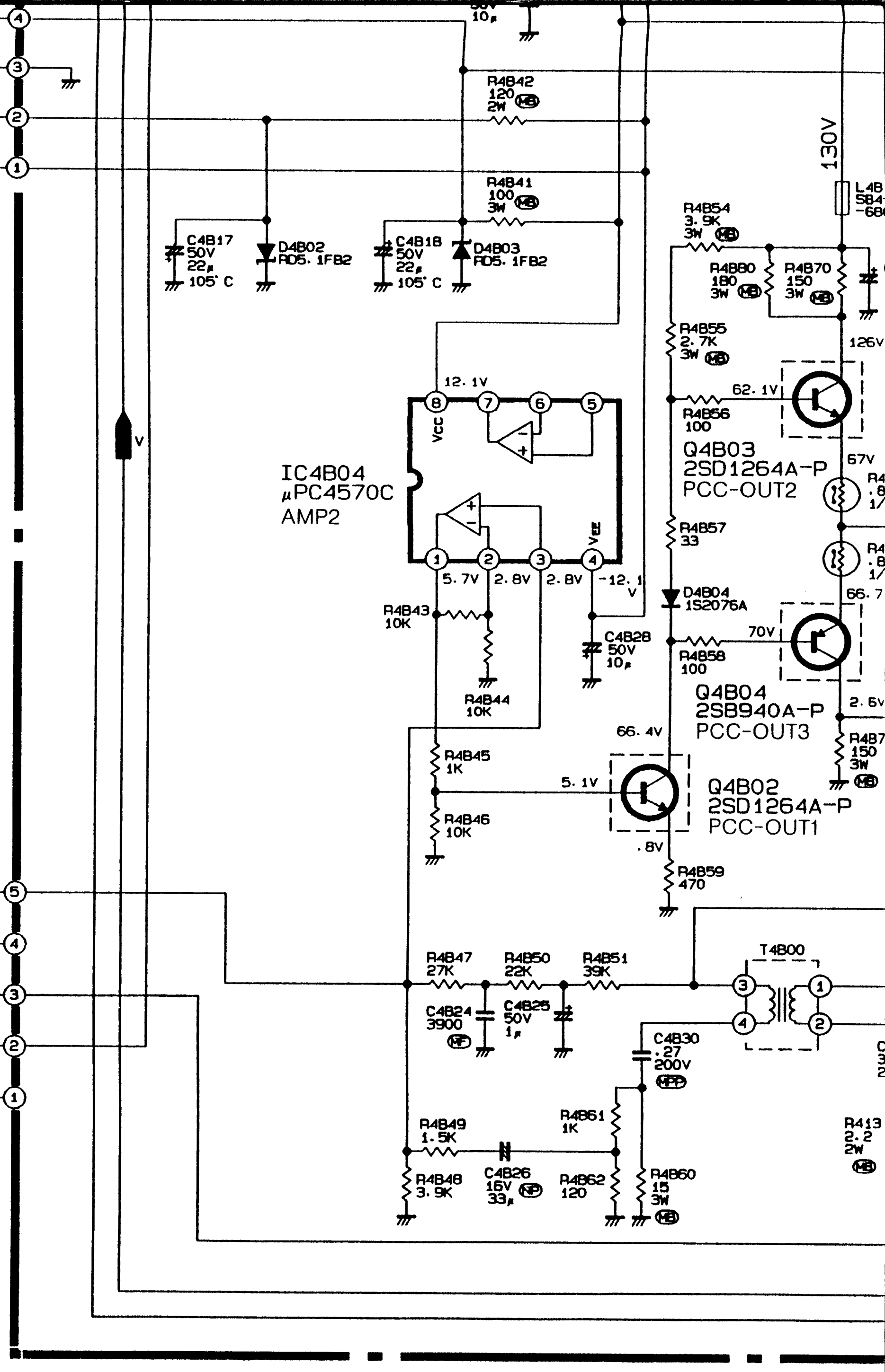

ROW DECODER
DATA BUFFER
11 D1
12 D2
1 D3
2 D4
A0 23
A1 22
A2 21
A3 20
A4 17
A5 16
A6 15
A7 19
LINE, ROW ADDRESS BUFFER
LINE DECODER
1024(256×4)
256
256K MEMORY CELL
256×4 DATA REGISTER
GND 3
ADDRESS POINTER
SERIAL DATA SELECTOR
SERIAL I/O
8 SO1
9 SO2
4 SO3
5 SO4
RASN 14
CAS 24
WEN 13
DTN 10
SC 7
CLOCK GENERATOR
18 VDD
6 GND



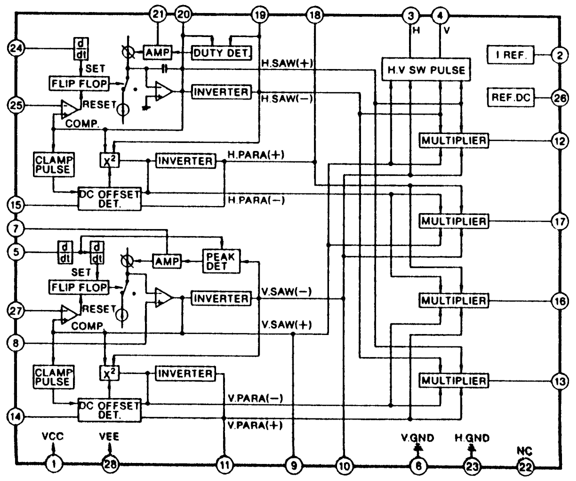
1
2
3
4
5
6
7
A
B
C
D
E
F
RH
PCB-SIGNAL
SF
PCB-CRT(R)
DH
DF
H-P
V-P
ACL
H-IN
V-IN
V-SAW
X-PRO
D512 RM-1
C521 25V 22μ
C520 .12 200V
Q500 2SC2482 H-DRIVE
R500 100
C500 2200 500V
R501 470
L500 3.3μH
R502 3.9K 1/2W
C501 K-560 B500V
C502 250V 1μ
R503 K-3.9K 5W
T500 TRANS-H-DRIVE
L501 LEAD -FERRITE
R505 K-33 1/2W
Q501 2SD1556 H-OUT
L502 LEAD -FERRITE
C503 K-560 R3.15KV
C504 K-560 R2KV
C505 J-.01 200V
C506 4700 1600V
C507 5600 1600V
C508 .018 630V
C509 .015 400V
D500 RS4FS
D501 RU4AM
R534 47 3W
R539 33 3W
C530 .033 200V
C5002 200V 100μ
T5000
TP95
TP94
C5001 50V 4.7μ
R506 1.5K 1W
R5006 100 3W
D5000 S5500D
L505 500μH
C511 .39 200V
C510 .56 200V
C513 .56 200V
C512 .47 200V
L506 3.9μH
C514 50V 10μ
L503 LIN
R541 560 2W
C5003 50V 10μ
R5008 1 1/2W
R5007 220 1/2W
Q5001 2SA673-C,D HV-REG
R5005 100K
C5000 K-.082
Q5000 *3 PROTECTOR
R5002 22K
IC5000 M5237L HV-REG
R5004 2.7K
VR5000 B-1K
R5003 F-47K
D511 *1
C528 Z-.01
R528 1K
R527 5.6K
R526 18K
R525 33K
D508 *1
R522 1.5K
D507 HZT22
C526 35V 220μ
R523 27K
R524 27K
D515 1S2076A
R533 8.2K
Q506 *3 PROTECTOR4
R530 1K
R532 1K
D510 *1
TP85
IC5A0 AN5551 PCC-DRIVE
PIN AMP
BIAS
WIDTH AMP
DRIVE
DS
Q5A0 2SC2073-B,C SIDE-PCC-OUT
C5A0 50V 3.3μ
R5A0 22K
C5A1 50V 2.2μ
C5A2 50V 2.2μ
D5A1 1S2076A
R5A1 3.3K
R5A4 22K
R5A2 330
RT502
R5D2 560
R5A3 5.6K
R5A5 15K
R5A5 56K
VR5A3 B-3K
RT500
R5D0 1K
C5A9 50V 10μ
C5A6 Z-4700
R5A8 4.7K
R5A7 3.3K
R5A9 2.2K
R5D1 1K
RT501
VR5A0 B-500
R5C9 1K
C5A5 50V 10μ
C5A3 50V 10μ
R5C8 4.7K
PCB-SIDE-PIN
IC5A1 μPC4570HA PCC-AMP
C5B0 Z-.01
C5A4 50V 10μ
R5C0 6.8K
R5C2 8.2K
R5C3 10K
R5C4 100K
VR5A2 B-3K
C5B1 Z-.01
R5C5 10K
R5C7 4.7K
R5C6 4.7K
DT
-12V
R-DY
G-DY
B-DY
R420 330
R421 330
R422 330
V-PULSE
V-OUT
V-SAW
H-PULSE
C4A15 16V 10μ
IC4A03 TC4053BP SW
R4A40 2.2K
R4A39 2.2K
C4A19 16V
C4A20 16V
R4A31
C4A50 10V 1000μ
L4A1 33μH
+12V
+5V
GND
DL
C4B27 50V 10μ

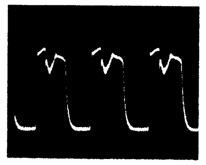
D
E
F
G
H
I
PCC-DRIVE
G-DY
B-DY
R420 330
R421 330
R422 330
V-PULSE
V-OUT
V-SAW
H-PULSE
C5A0 50V 3.3μ NP
R5A0 22K
C5A1 50V 2.2μ
C5A2 50V 2.2μ
D5A1 1S2076A
R5A1 3.3K
R5A4 22K
R5A2 330
RT502
R502 560
R5A3 5.6K
R5A5 15K
R5A5 56K
VR5A3 B-3K
RT500
R5D0 1K
C5A9 50V 10μ
VR5A0 B-500
C5A6 Z-4700
R5A8 4.7K
R5A7 3.3K
R5A9 2.2K
R5D1 1K
RT501
C5A5 50V 10μ NP
R5C9 1K
C5A3 50V 10μ NP
R5C8 4.7K
PCB-SIDE-PIN
IC5A1
μPC4570HA
PCC-AMP
C580 Z-.01
C5A4 50V 10μ NP
R5C0 6.8K
R5C2 8.2K
R5C3 10K
R5C4 100K
R5C2 8.2K
VR5A2 B-3K
C5B1 Z-.01
R5C5 10K
R5C7 4.7K
R5C6 4.7K
DT
-12V
C528 Z-.01
R528 1K
R527 5.6K
C526 35V 220μ
R523 27K
R524 27K
IC50
μPC3
PROT
D515 1S2076A
R533 8.2K
Q506 *3
PROTECTOR4
R530 1K
R532 1K
D510 *1
TP65
PCB-PCC
C4A15 16V 10μ
IC4A03
TC4053BP
SW
C4A16 16V 10μ
R4A40 2.2K
R4A39 2.2K
C4A19 16V 100μ NP
C4A20 16V 100μ NP
R4A31 2.7K
DL
+12V
+5V
GND
-5V
-12V
L4A1 33μH
L4A2 33μH
C4A50 10V 1000μ 105°C
C4A51 10V 1000μ 105°C
VR4A02 B-10K
PCC-BAL
R4A07 30K MB
C4A01 560
C4A02 390 UJ
C4A03 390 UJ
C4A00 16V 47μ
R4A06 330
IC4A00
TC74HC123AP
PHASE
CLR
R4A02 3.3K
C4A04 2200 TF
R4A01 4.7K
R4A00 1K
D4A00 1S2076A
Q4A00
2SC1740S-R.S
H-PULSE
R4A03 330
R4A04 1.2K
R4A05 4.7K
R4A81 100
R4A30 1K
R4A29 1.8K
R4A28 5.6K
C4A41 50V 10μ
R4A33 5.6K
C4A21 33
R4A34 10K
R4A35 2.2K
IC4A02
μPD4574C
AMP1
VEE
VCC
C4A23 16V 33μ NP
R4A36 1K
R4A27 5.6K
R4A26 1.8K
R4A37 *
C4A22 56
R4A38 3.9K
C4A40 50V 10μ
R4A80 100
R4A25 1K
R4A24 1.8K
VR4A00 B-10K
TOP-PCC
VR4A01 B-10K
BOTTOM -PCC
R4A23 1K
DM
PCC
H.PARA
V.BLK
H-PULSE
C4A12 4.7μ
R4A14 10K
C4A31 .01 MF
R4A12 10K
R4A15 39K
R4A13 27K
C4A32 .01 MF
C4A11 50V 1μ
C4A06 16V 330μ
C4A10 50V 1μ
C4A13 16V 33μ
Q4A01
2SC1740S-R.S
C4B27 50V 10μ
R4B42 120 2W MB
R4B41 100 3W MB
C4B17 50V 22μ 105°C
D4B02 RD5.1FB2
C4B18 50V 22μ 105°C
D4B03 RD5.1FB2
IC4B04
μPC4570C
AMP2
R4B43 10K
R4B44 10K
C4B28 50V 10μ
R4B45 1K
R4B46 10K
130V
R4B54 3.9K 3W MB
R4B80 180 3W MB
R4B70 150 3W MB
R4B55 2.7K 3W MB
126V
R4B56 100
Q4B03
2SD1264A-P
PCC-OUT2
R4B57 33
D4B04 1S2076A
R4B58 100
Q4B04
2SB940A-P
PCC-OUT3
Q4B02
2SD1264A-P
PCC-OUT1
R4B59 470
R4B47 27K
R4B50 22K
R4B51 39K
C4B24 3900 MF
C4B25 50V 1μ
T4B00
C4B30 .27 200V MPP


G
H
I
J
K
PCB-PCC
IC4A03
TC4053BP
SW
IC4A00
TC74HC123AP
PHASE
Q4A00
2SC1740S-R.S
H-PULSE
D4A00
1S2076A
IC4A01
CXA1268P
WAVE-GEN
Q4A01
2SC1740S-R,S
MULTIPLE
IC4A02
μPD4574C
AMP1
VR4A02
B-10K
PCC-BAL
VR4A00
B-10K
TOP-PCC
VR4A01
B-10K
BOTTOM
-PCC
+5V
GND
-5V
-12V
PCC
H.PARA
V.BLK
H-PULSE
DM
VEE
V BLAS
REF DO
H BLAS
H BLK
GND
N.C.
H AGC
H SAW
V PARA
H PARA
XV.S
XV.P
H CLP
VCC
I REF
H SWP
V SWP
V BLK
GND(V)
V AGC
V GEN
V SAW
H.S XV.S
H.P.
H.S XV.P
V CLP

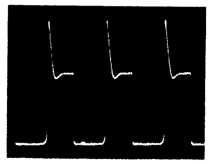

IC4B04
μPC4570C
AMP2
Q4B03
2SD1264A-P
PCC-OUT2
Q4B04
2SB940A-P
PCC-OUT3
Q4B02
2SD1264A-P
PCC-OUT1
D4B02
RD5.1FB2
D4B03
RD5.1FB2
D4B04
1S2076A
T4B00
130V
126V
Vcc
Vee

IC4A01 CXA1268P


SET
FLIP FLOP
RESET
COMP.
AMP
DUTY DET
INVERTER
H.SAW(+)
H.SAW(−)
CLAMP PULSE
DC OFFSET DET.
H.PARA(+)
H.PARA(−)
H.V SW PULSE
I REF
REF DC
MULTIPLIER
PEAK DET
V.SAW(−)
V.SAW(+)
V.PARA(−)
V.PARA(+)
VCC
VEE
V.GND
H.GND
NC



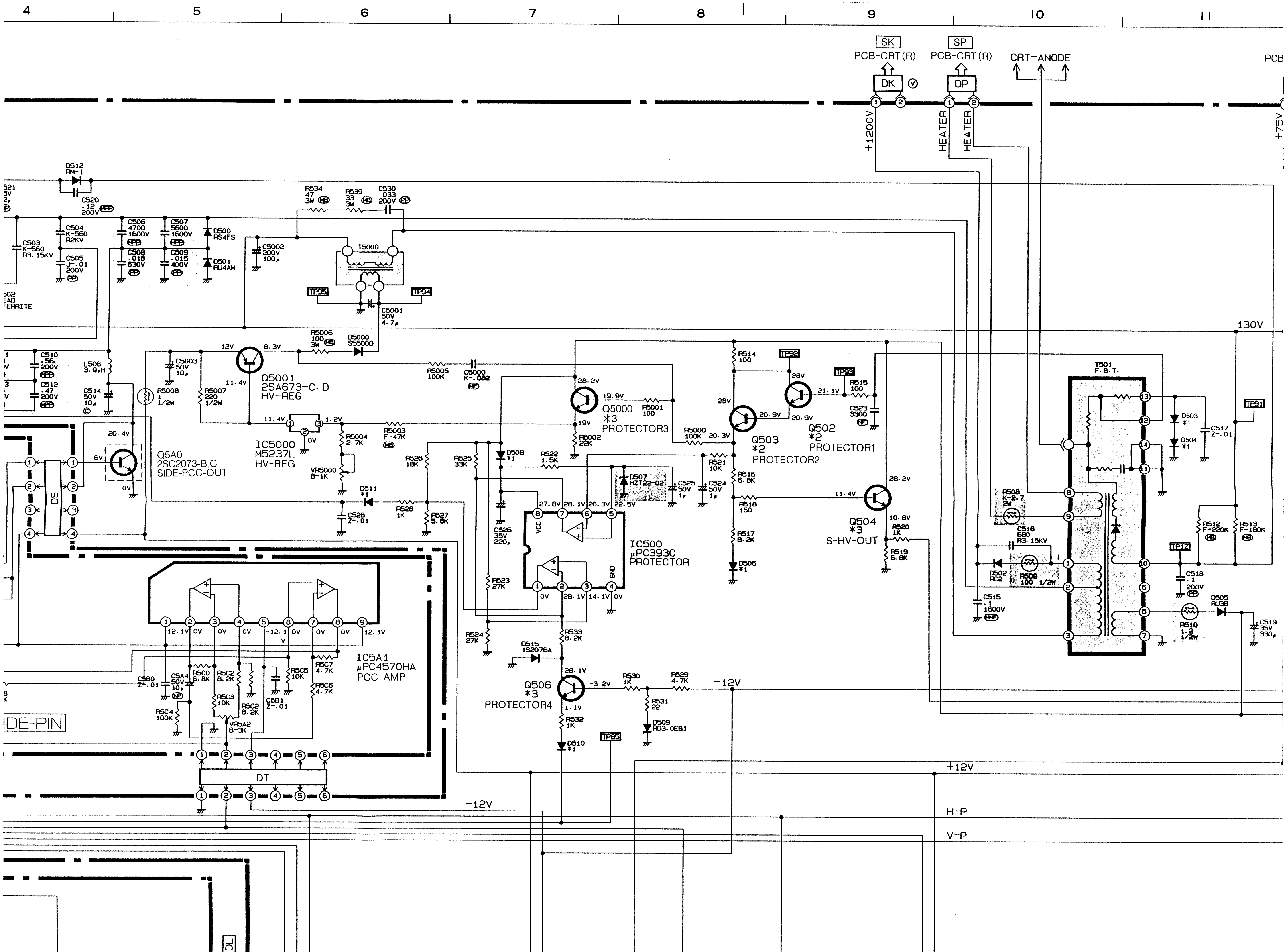
⑰1.1Vp-p(H)

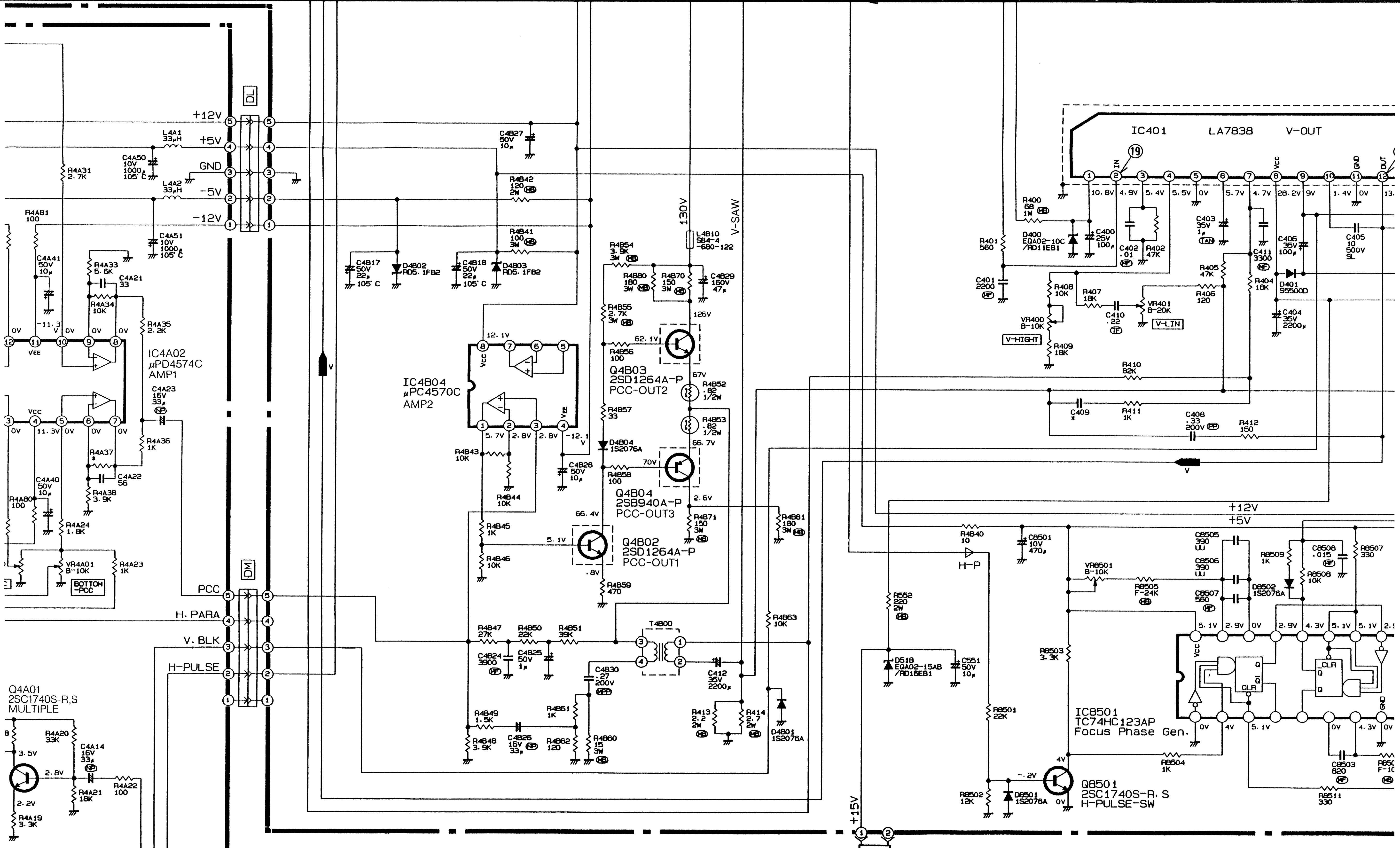


⑱130Vp-p(H)

*DIFFERENCE TABLE

	C409
VS-40VA2	0.68
VS-45VA1	0.27
VS-45VA2	0.27
VS-50VA1	0.27
VS-50VA2	0.27
VS-60VA2	0.27
VS-45VA2CA	0.27
VS-50VA2CA	0.27
VS-60VA2CA	0.27

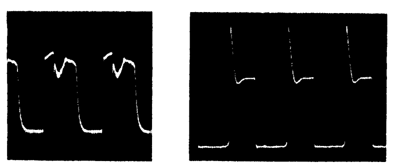

4
5
6
7
8
9
10
11
SK
PCB-CRT(R)
DK
Ⓥ
SP
PCB-CRT(R)
DP
CRT-ANODE
PCB
+1200V
HEATER
HEATER
+75V
D512
RM-1
C520
.12
200V
PP
C504
K-560
R2KV
C503
K-560
R3.15KV
C505
J-.01
200V
PP
C506
4700
1600V
HPP
C508
.018
630V
PP
C507
5600
1600V
HPP
C509
.015
400V
PP
D500
RS4FS
D501
RU4AM
502
EAD
ERRITE
R534
47
3W
MB
R539
33
3W
MB
C530
.033
200V
PP
C5002
200V
100μ
T5000
TP95
TP94
C5001
50V
4.7μ
R5006
100
3W
MB
D5000
S5500D
C510
.56
200V
HPP
C512
.47
200V
HPP
L506
3.9μH
C514
50V
10μ
Ⓒ
C5003
50V
10μ
R5008
1
1/2W
R5007
220
1/2W
12V
8.3V
11.4V
Q5001
2SA673-C,D
HV-REG
R5005
100K
C5000
K-.082
MF
11.4V
1.2V
0V
IC5000
M5237L
HV-REG
R5004
2.7K
R5003
F-47K
MB
VR5000
B-1K
20.4V
6V
0V
Q5A0
2SC2073-B,C
SIDE-PCC-OUT
DS
D511
*1
C528
Z-.01
R528
1K
R526
18K
R527
5.6K
R525
33K
D508
*1
R522
1.5K
28.2V
19.9V
19V
Q5000
*3
PROTECTOR3
R5001
100
R5002
22K
C526
35V
220μ
D507
HZT22-02
C525
50V
1μ
C524
50V
1μ
27.8V
28.1V
20.3V
22.5V
IC500
μPC393C
PROTECTOR
VCC
GND
0V
28.1V
14.1V
0V
R523
27K
R524
27K
R5000
100K
20.3V
28V
20.9V
20.9V
Q503
*2
PROTECTOR2
R514
100
TP92
28V
TP93
21.1V
R515
100
C523
3300
MF
Q502
*2
PROTECTOR1
R521
10K
R516
6.8K
R518
150
R517
8.2K
D506
*1
28.2V
11.4V
10.8V
Q504
*3
S-HV-OUT
R520
1K
R519
6.8K
130V
T501
F.B.T.
D503
*1
D504
*1
C517
Z-.01
TP91
R508
K-2.7
2W
C516
680
R3.15KV
D502
RC2
R509
100 1/2W
C515
.1
1600V
HMP
TP17
C518
.1
200V
PP
R512
F-220K
MB
R513
F-180K
MB
D505
RU3B
R510
1.2
1/2W
C519
35V
330μ
IC5A1
μPC4570HA
PCC-AMP
12.1V
0V
0V
0V
-12.1V
0V
0V
0V
12.1V
C5A0
Z-.01
C5A4
50V
10μ
NP
R5C0
6.8K
R5C2
8.2K
R5C3
10K
R5C2
8.2K
R5C5
10K
R5C7
4.7K
R5C6
4.7K
C5B1
Z-.01
R5C4
100K
VR5A2
B-3K
IDE-PIN
DT
R533
8.2K
D515
1S2076A
28.1V
-3.2V
1.1V
Q506
*3
PROTECTOR4
R530
1K
R529
4.7K
-12V
R531
22
D509
RD3.0EB1
R532
1K
D510
*1
TP85
-12V
+12V
H-P
V-P
DL


DL
+12V
+5V
GND
-5V
-12V
L4A1 33μH
L4A2 33μH
C4A50 10V 1000μ 105°C
C4A51 10V 1000μ 105°C
R4A31 2.7K
R4A81 100
C4A41 50V 10μ
R4A33 5.6K
C4A21 33
R4A34 10K
R4A35 2.2K
IC4A02 μPD4574C AMP1
C4A23 16V 33μ NP
R4A36 1K
R4A37 *
C4A22 56
R4A38 3.9K
C4A40 50V 10μ
R4A80 100
R4A24 1.8K
VR4A01 B-10K
R4A23 1K
BOTTOM -PCC
DM
PCC
H.PARA
V.BLK
H-PULSE
Q4A01 2SC1740S-R,S MULTIPLE
R4A20 33K
C4A14 16V 33μ
R4A21 18K
R4A22 100
R4A19 3.3K
C4B27 50V 10μ
R4B42 120 2W
R4B41 100 3W
C4B17 50V 22μ 105°C
D4B02 RD5.1FB2
C4B18 50V 22μ 105°C
D4B03 RD5.1FB2
IC4B04 μPC4570C AMP2
R4B43 10K
R4B44 10K
R4B45 1K
R4B46 10K
C4B26 50V 10μ
130V
V-SAW
L4B10 SB4-4 -680-122
R4B54 3.9K 3W
R4B80 180 3W
R4B70 150 3W
C4B29 160V 47μ
R4B55 2.7K 3W
R4B56 100
Q4B03 2SD1264A-P PCC-OUT2
R4B52 .82 1/2W
R4B53 .82 1/2W
R4B57 33
D4B04 1S2076A
Q4B04 2SB940A-P PCC-OUT3
R4B58 100
R4B71 150 3W
R4B81 180 3W
Q4B02 2SD1264A-P PCC-OUT1
R4B59 470
R4B63 10K
T4B00
R4B47 27K
R4B50 22K
R4B51 39K
C4B24 3900
C4B25 50V 1μ
C4B30 .27 200V
C412 35V 2200μ
R413 2.2 2W
R414 2.7 2W
D4B01 1S2076A
R4B49 1.5K
R4B48 3.9K
C4B26 16V 33μ NP
R4B61 1K
R4B62 120
R4B60 15 3W
IC401 LA7838 V-OUT
R400 68 1W
D400 EQA02-10C /RD11EB1
C400 25V 100μ
C402 .01
R402 47K
C403 35V 1μ
C406 35V 100μ
C405 10 500V SL
R401 560
C401 2200
C411 3300
R405 47K
R404 18K
D401 S5500D
R408 10K
R407 18K
C410 .22
VR401 B-20K
V-LIN
R406 120
C404 35V 2200μ
VR400 B-10K
V-HIGHT
R409 18K
R410 82K
C409 *
R411 1K
C408 .33 200V
R412 150
+12V
+5V
R4B40 10
H-P
C8501 10V 470μ
C8505 390
C8506 390
C8507 560
VR8501 B-10K
R8505 F-24K
R8509 1K
C8508 .015
R8507 330
R8508 10K
D8502 1S2076A
R552 220 2W
D518 EQA02-15AB /RD16EB1
C551 50V 10μ
R8503 3.3K
IC8501 TC74HC123AP Focus Phase Gen.
R8501 22K
R8504 1K
C8503 820
R8511 330
R8502 12K
D8501 1S2076A
Q8501 2SC1740S-R,S H-PULSE-SW
+15V

DC

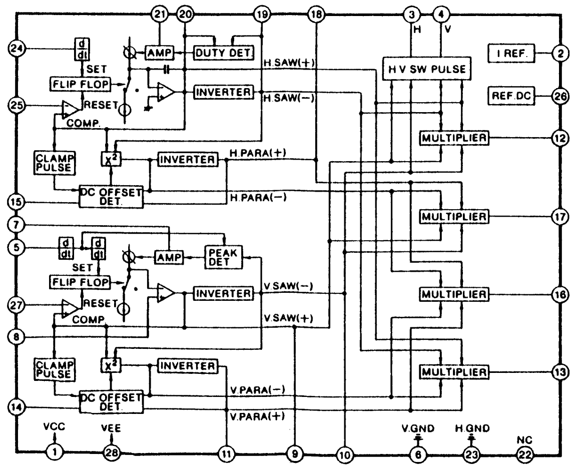
PCB-CRT

SC



Vp-p(H)   ⑱130Vp-p(H)

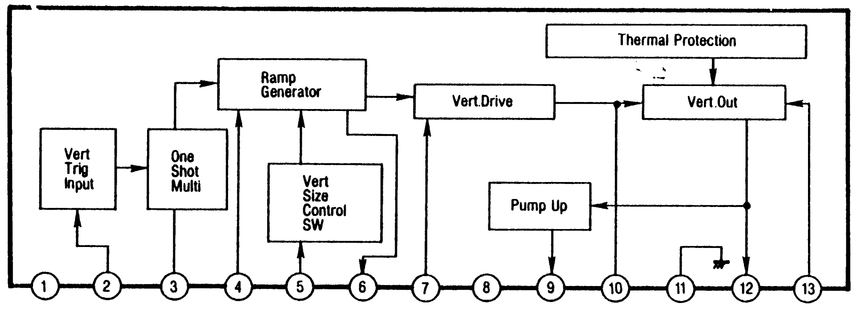
IC4A01 CXA1268P

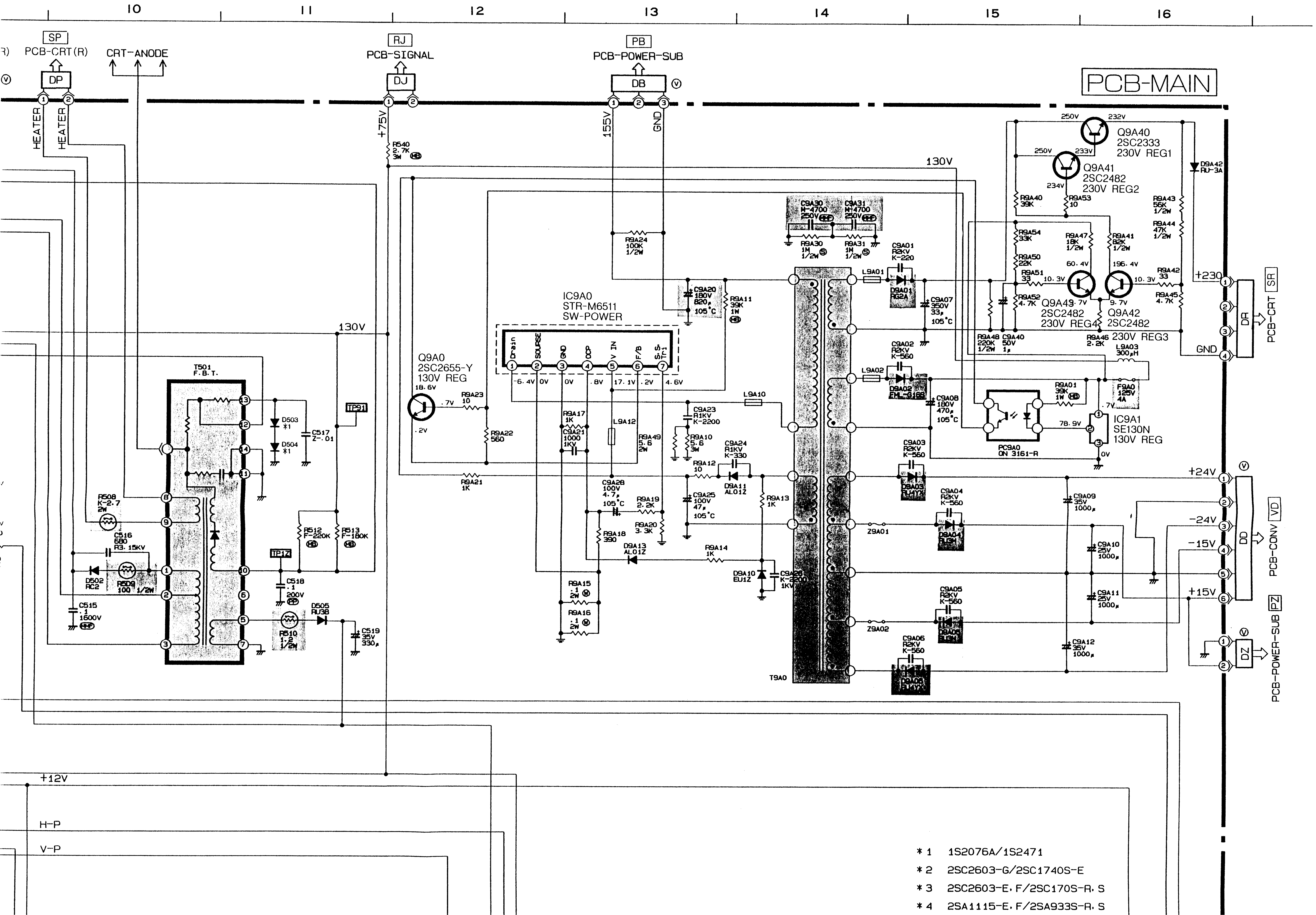

SET
FLIP FLOP
RESET
COMP
AMP
DUTY DET
INVERTER
H SAW(+)
H SAW(-)
CLAMP PULSE
DC OFFSET DET
H PARA(+)
H PARA(-)
H V SW PULSE
I REF.
REF DC
MULTIPLIER
PEAK DET
V SAW(-)
V SAW(+)
V PARA(-)
V PARA(+)
VCC
VEE
V GND
H GND
NC

⁎DIFFERENCE TABLE

	C409	R4A37	R8551
VS-40VA2	0.68	10K	5.1K
VS-45VA1	0.27	22K	6.8K
VS-45VA2	0.27	22K	6.8K
VS-50VA1	0.27	22K	6.8K
VS-50VA2	0.27	22K	6.8K
VS-60VA2	0.27	22K	6.8K
VS-45VA2CA	0.27	22K	6.8K
VS-50VA2CA	0.27	22K	6.8K
VS-60VA2CA	0.27	22K	6.8K

IC401 LA7838


Thermal Protection
Ramp Generator
Vert.Drive
Vert.Out
Vert Trig Input
One Shot Multi
Vert Size Control SW
Pump Up
1
2
3
4
5
6
7
8
9
10
11
12
13

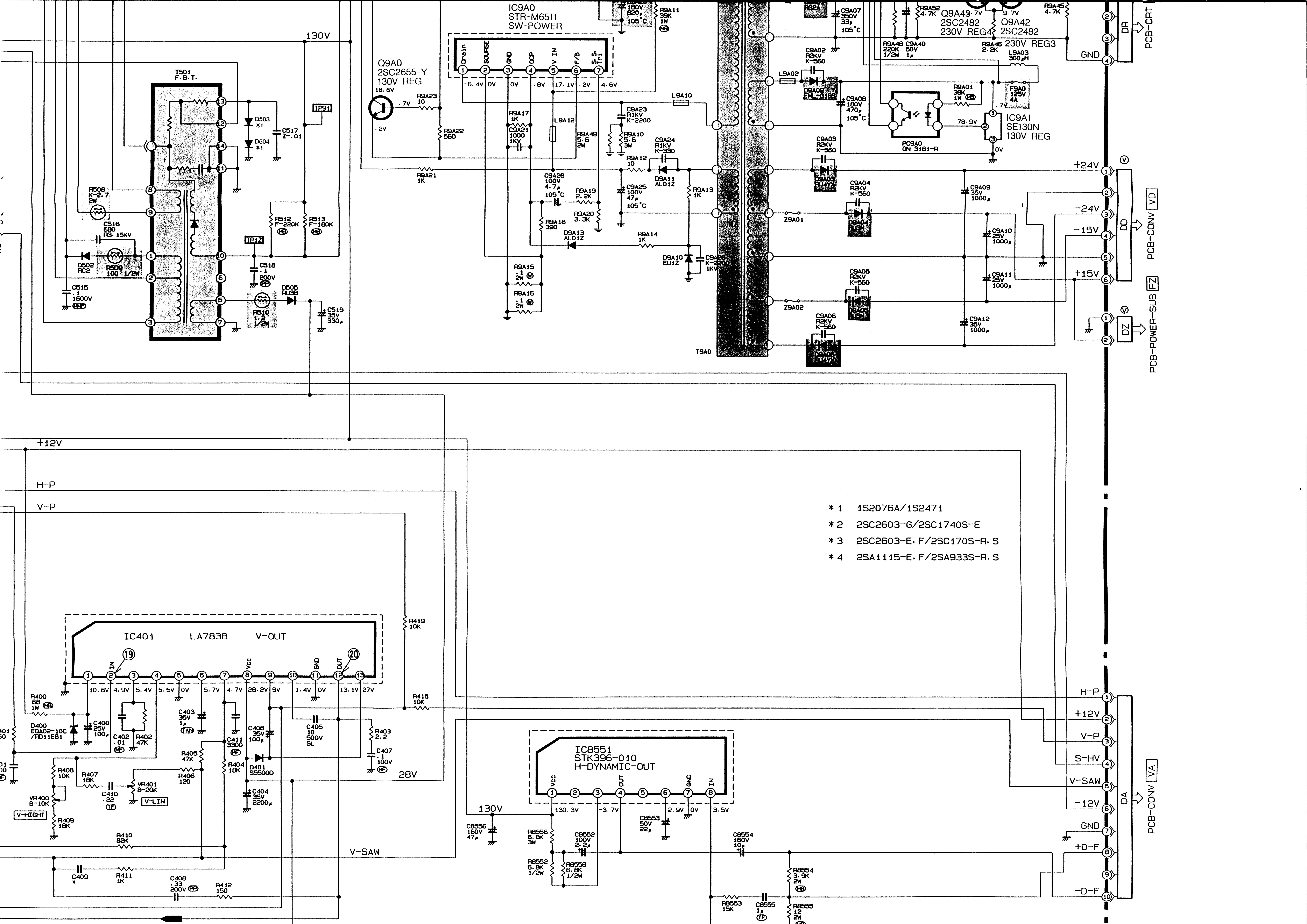

10
11
12
13
14
15
16
SP
PCB-CRT(R)
DP
CRT-ANODE
HEATER
HEATER
RJ
PCB-SIGNAL
DJ
+75V
PB
PCB-POWER-SUB
DB
155V
GND
PCB-MAIN
R540 2.7K 3W
130V
130V
T501 F.B.T.
D503 *1
D504 *1
C517 Z-.01
TP91
R508 K-2.7 2W
C516 680
R3.15KV
D502 RC2
R509 100 1/2W
C515 .1 1600V
R512 F-220K
R513 F-180K
TP1Z
C518 .1 200V
D505 RU3B
R510 1.2 1/2W
C519 35V 330μ
Q9A0 2SC2655-Y 130V REG
18.6V
.7V
.2V
R9A23 10
R9A22 560
R9A21 1K
IC9A0 STR-M6511 SW-POWER
Drain
SOURSE
GND
OCP
V IN
F/B
S.S. Tr1
-6.4V
0V
0V
.8V
17.1V
.2V
4.6V
R9A17 1K
C9A21 1000 1KV
L9A12
R9A49 5.6 2W
C9A28 100V 4.7μ 105°C
R9A19 2.2K
R9A20 3.3K
R9A18 390
D9A13 AL01Z
R9A15 .1 2W
R9A16 .1 2W
R9A24 100K 1/2W
C9A20 180V 820μ 105°C
R9A11 39K 1W
C9A23 R1KV K-2200
L9A10
R9A10 5.6 3W
C9A24 R1KV K-330
R9A12 10
D9A11 AL01Z
C9A25 100V 47μ 105°C
R9A13 1K
R9A14 1K
D9A10 EU1Z
C9A26 K-2200 1KV
C9A30 M-4700 250V
C9A31 M-4700 250V
R9A30 1M 1/2W
R9A31 1M 1/2W
T9A0
C9A01 R2KV K-220
L9A01
D9A01 RG2A
C9A07 350V 33μ 105°C
C9A02 R2KV K-560
L9A02
D9A02 EML-G18S
C9A08 180V 470μ 105°C
C9A03 R2KV K-560
D9A03 RU4YX
C9A04 R2KV K-560
Z9A01
D9A04 RU3M
C9A05 R2KV K-560
Z9A02
D9A05 RU3M
C9A06 R2KV K-560
D9A06 RU4YX
C9A09 35V 1000μ
C9A10 25V 1000μ
C9A11 25V 1000μ
C9A12 35V 1000μ
PC9A0 ON 3161-R
R9A01 39K 1W
78.9V
.7V
IC9A1 SE130N 130V REG
0V
F9A0 125V 4A
L9A03 300μH
250V
232V
Q9A40 2SC2333 230V REG1
250V
233V
Q9A41 2SC2482 230V REG2
234V
D9A42 RU-3A
R9A40 39K
R9A53 10
R9A43 56K 1/2W
R9A44 47K 1/2W
R9A54 33K
R9A47 18K 1/2W
R9A41 82K 1/2W
R9A50 22K
60.4V
196.4V
R9A51 33
10.3V
10.3V
R9A42 33
R9A52 4.7K
Q9A43 2SC2482 230V REG4
9.7V
9.7V
Q9A42 2SC2482 230V REG3
R9A45 4.7K
R9A48 220K 1/2W
C9A40 50V 1μ
R9A46 2.2K
+230
GND
DR
SR
PCB-CRT
+24V
-24V
-15V
+15V
DD
VD
PCB-CONV
DZ
PZ
PCB-POWER-SUB
+12V
H-P
V-P

*1 1S2076A/1S2471

*2 2SC2603-G/2SC1740S-E

*3 2SC2603-E, F/2SC170S-R, S

*4 2SA1115-E, F/2SA933S-R, S


IC9A0
STR-M6511
SW-POWER
Q9A0
2SC2655-Y
130V REG
T501
F.B.T.
130V
TP91
TP17
Q9A43
2SC2482
230V REG4
Q9A42
2SC2482
230V REG3
IC9A1
SE130N
130V REG
PC9A0
ON 3161-R
T9A0
+24V
-24V
-15V
+15V
GND
DR
PCB-CRT
DD
PCB-CONV VD
DZ
PCB-POWER-SUB PZ
+12V
H-P
V-P
IC401
LA7838
V-OUT
28V
V-SAW
V-HIGHT
V-LIN
IC8551
STK396-010
H-DYNAMIC-OUT
S-HV
-12V
+D-F
-D-F
DA
PCB-CONV VA

*1 1S2076A/1S2471

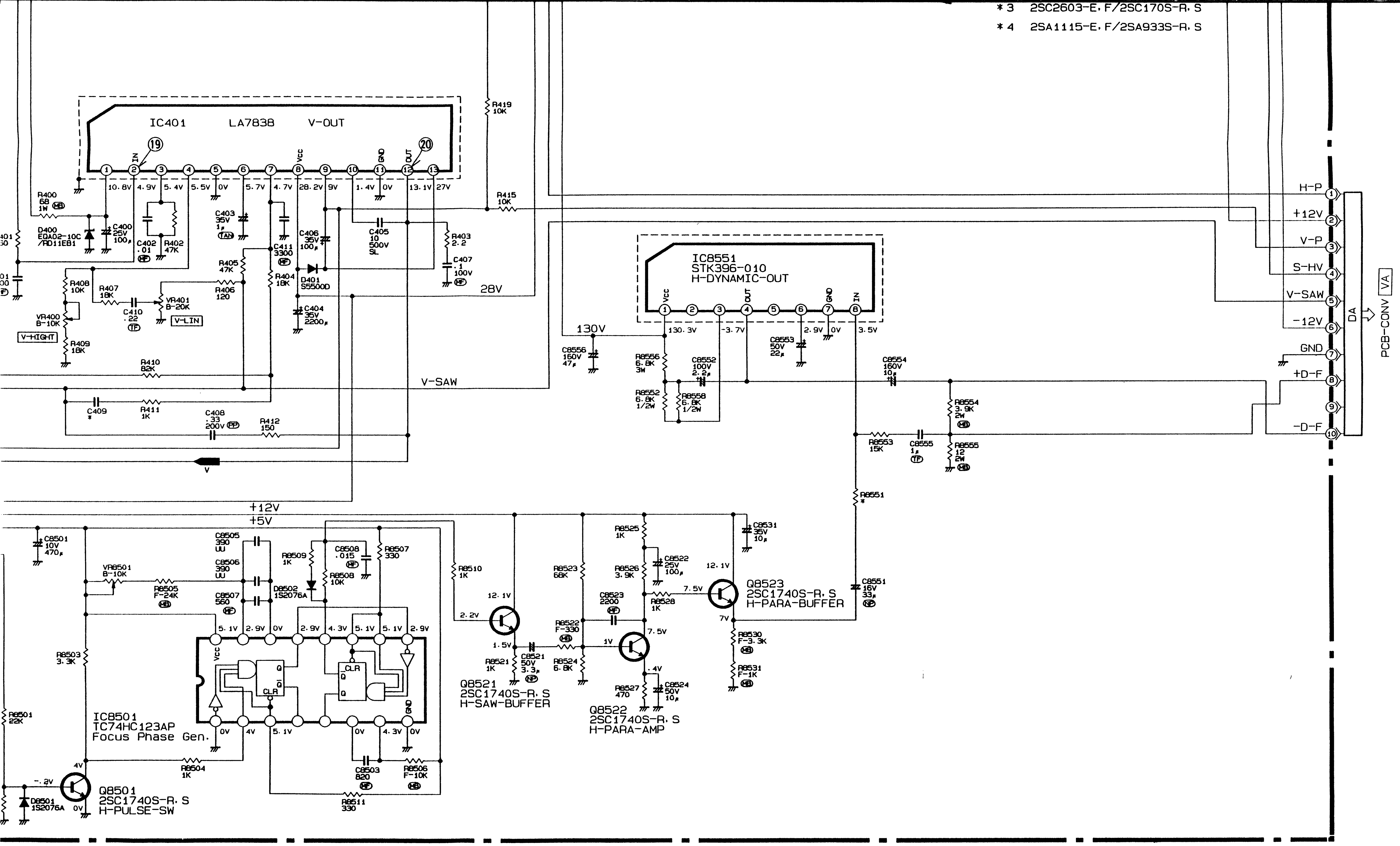
*2 2SC2603-G/2SC1740S-E

*3 2SC2603-E, F/2SC170S-R, S

*4 2SA1115-E, F/2SA933S-R, S

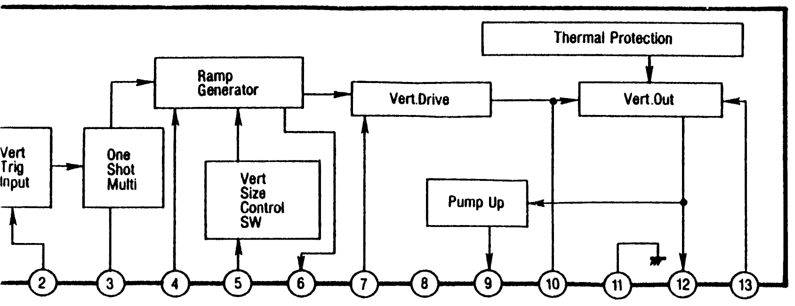
＊3　2SC2603-E, F/2SC170S-R, S

＊4　2SA1115-E, F/2SA933S-R, S

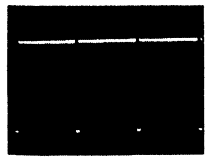


IC401 LA7838 V-OUT
⑲ IN
⑳ OUT
Vcc
GND
10.8V 4.9V 5.4V 5.5V 0V 5.7V 4.7V 28.2V 9V 1.4V 0V 13.1V 27V
R400 68 1W
D400 EQA02-10C /RD11EB1
C400 25V 100μ
C402 .01
R402 47K
C403 35V 1μ
C411 3300
R405 47K
R404 18K
R406 120
C406 35V 100μ
D401 S5500D
C404 35V 2200μ
C405 10 500V SL
R403 2.2
C407 .1 100V
R419 10K
R415 10K
28V
R408 10K
R407 18K
C410 .22
VR401 B-20K
V-LIN
VR400 B-10K
V-HIGHT
R409 18K
R410 82K
V-SAW
C409 *
R411 1K
C408 .33 200V
R412 150
V
+12V
+5V
IC8551 STK396-010 H-DYNAMIC-OUT
Vcc OUT GND IN
130V
130.3V -3.7V 2.9V 0V 3.5V
C8556 160V 47μ
R8556 6.8K 3W
C8552 100V 2.2μ
C8553 50V 22μ
R8552 6.8K 1/2W
R8558 6.8K 1/2W
C8554 160V 10μ
R8554 3.9K 2W
R8553 15K
C8555 1μ
R8555 12 2W
R8551 *
C8551 16V 33μ
H-P
+12V
V-P
S-HV
V-SAW
-12V
GND
+D-F
-D-F
DA
PCB-CONV VA
C8501 10V 470μ
VR8501 B-10K
R8505 F-24K
R8503 3.3K
R8501 22K
C8505 390 UU
C8506 390 UU
C8507 560
D8502 1S2076A
R8509 1K
R8508 10K
C8508 .015
R8507 330
R8510 1K
IC8501 TC74HC123AP Focus Phase Gen.
CLR Q
5.1V 2.9V 0V 2.9V 4.3V 5.1V 5.1V 2.9V
0V 4V 5.1V 0V 4.3V 0V
R8504 1K
C8503 820
R8506 F-10K
R8511 330
Q8501 2SC1740S-R, S H-PULSE-SW
D8501 1S2076A
-.2V 4V 0V
Q8521 2SC1740S-R, S H-SAW-BUFFER
12.1V 2.2V 1.5V
R8521 1K
C8521 50V 3.3μ
R8523 68K
C8523 2200
R8522 F-330
R8524 6.8K
Q8522 2SC1740S-R, S H-PARA-AMP
1V 7.5V .4V
R8527 470
C8524 50V 10μ
R8525 1K
R8526 3.9K
C8522 25V 100μ
R8528 1K
Q8523 2SC1740S-R, S H-PARA-BUFFER
12.1V 7.5V 7V
C8531 35V 10μ
R8530 F-3.3K
R8531 F-1K

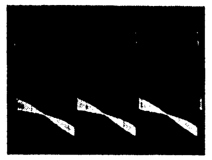
LA7838



Thermal Protection
Ramp Generator
Vert.Drive
Vert.Out
Vert Trig Input
One Shot Multi
Vert Size Control SW
Pump Up
2 3 4 5 6 7 8 9 10 11 12 13

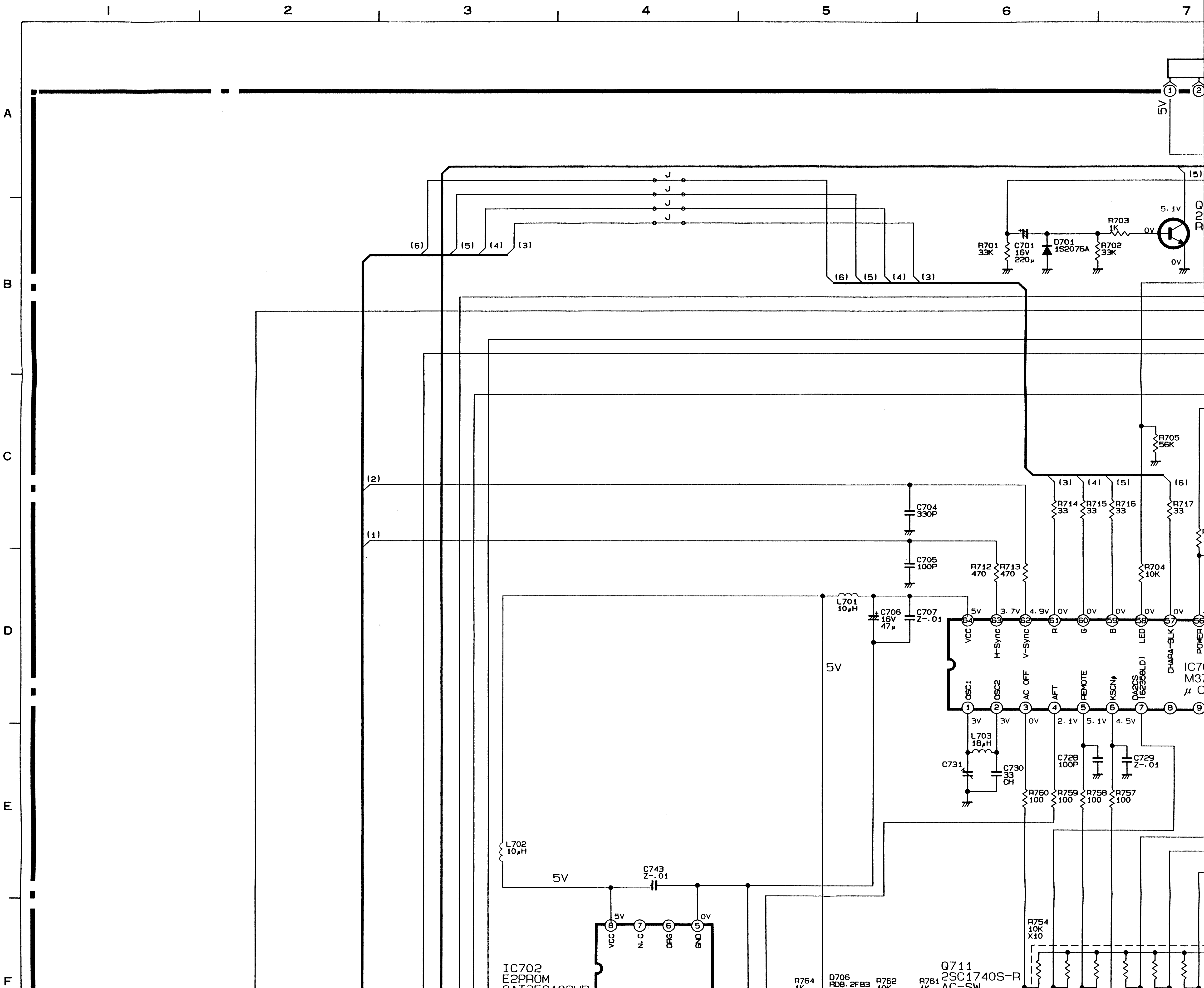


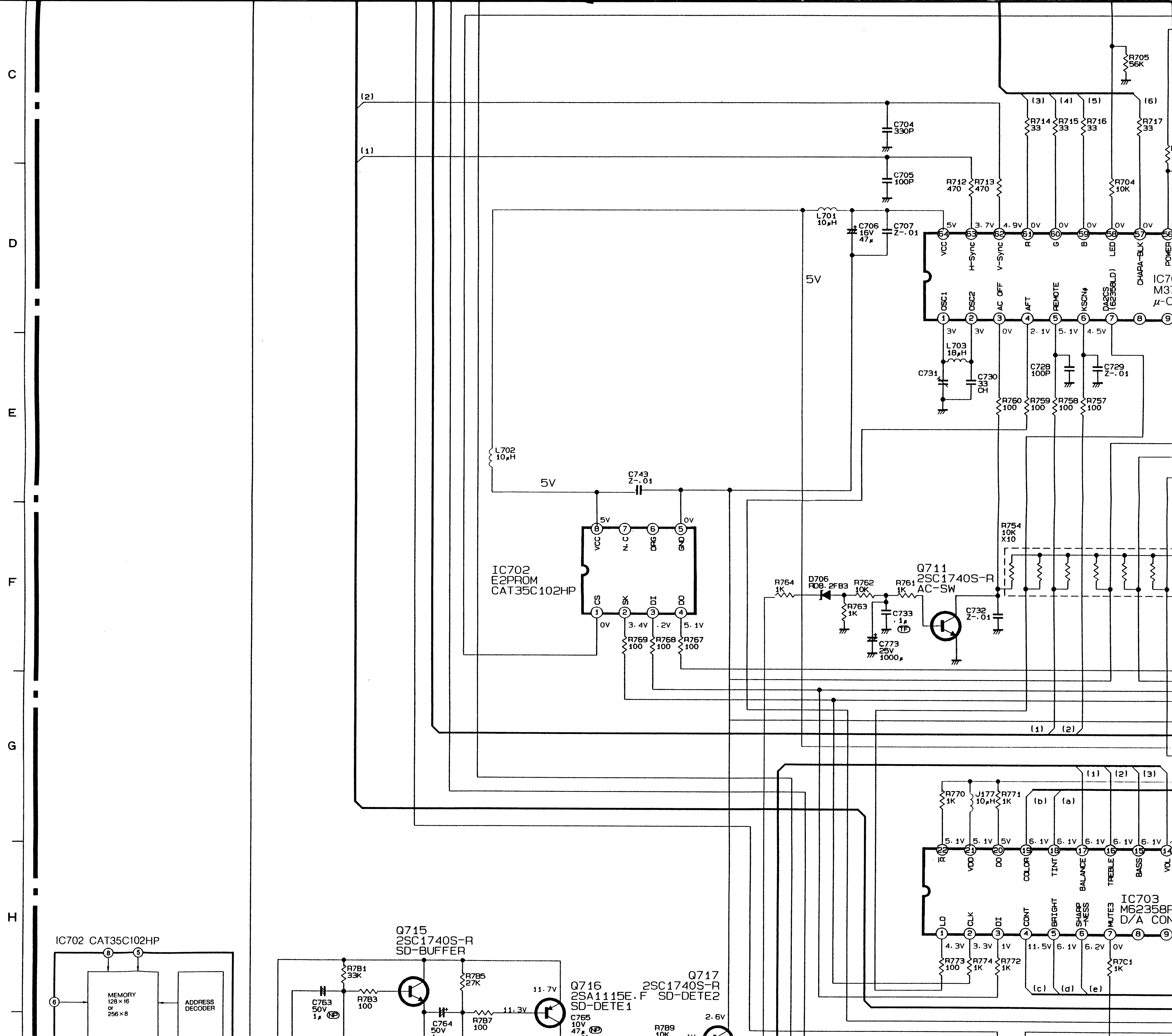
⑲5.0Vp-p(V)

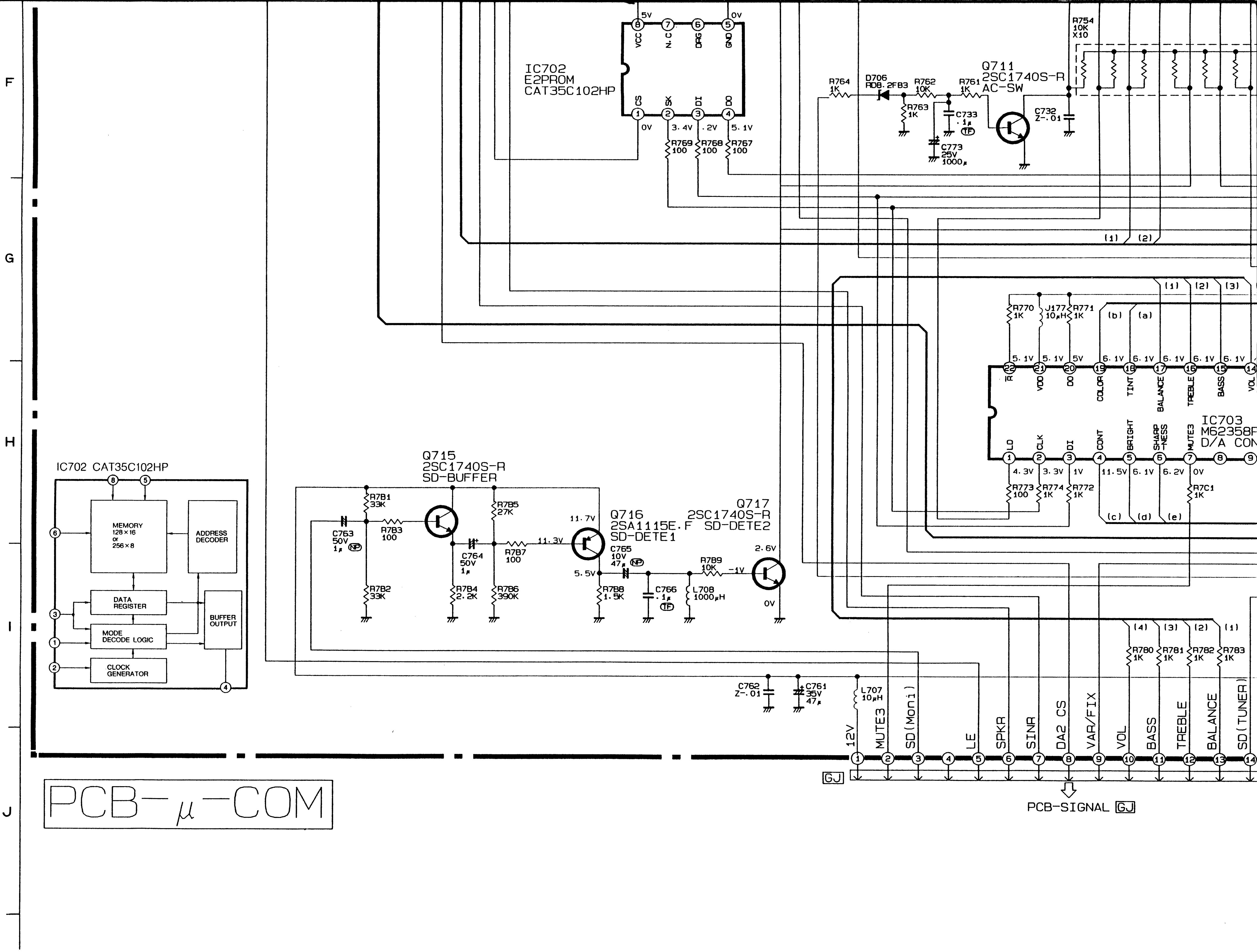


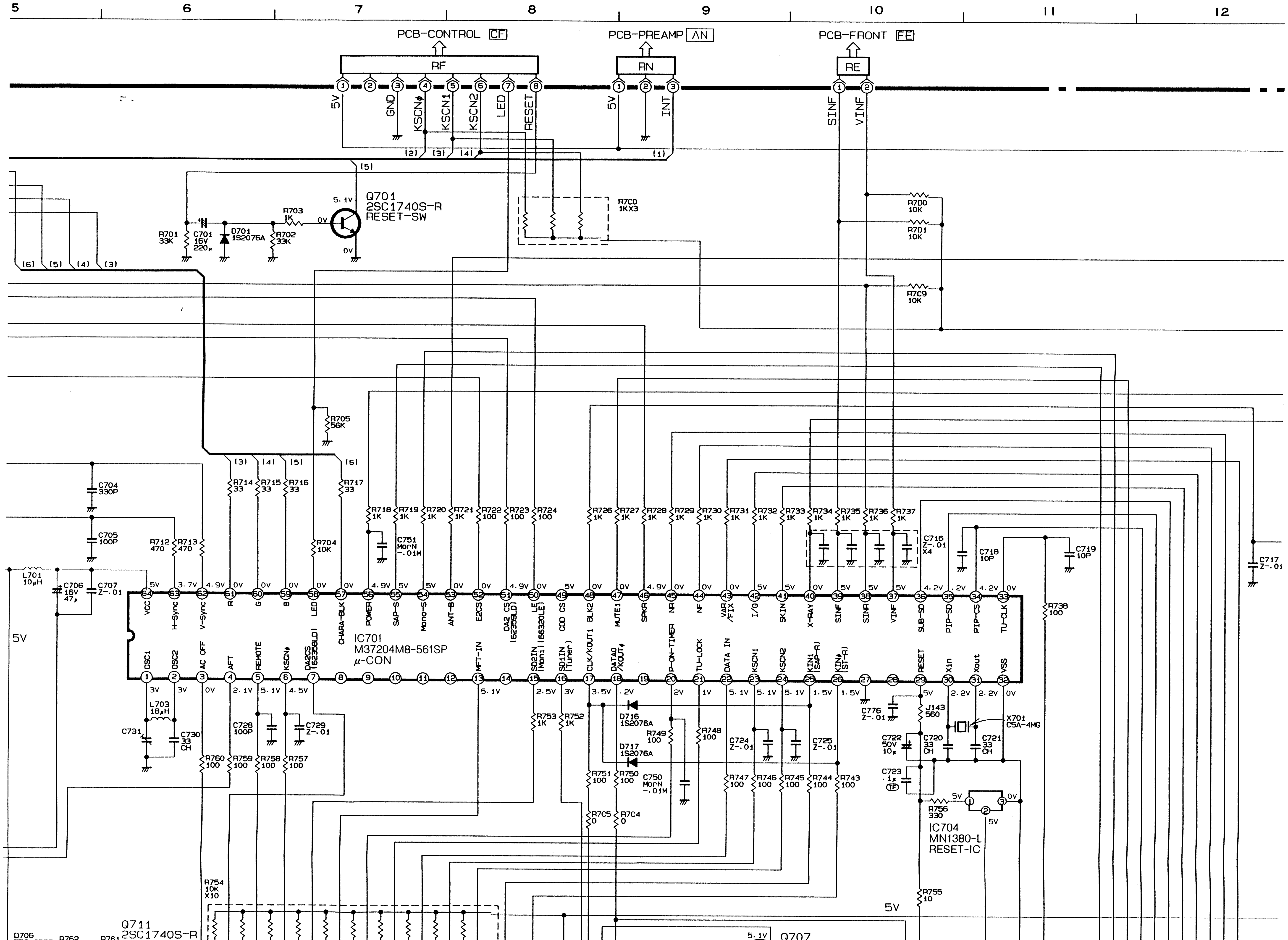
⑳58Vp-p(V)

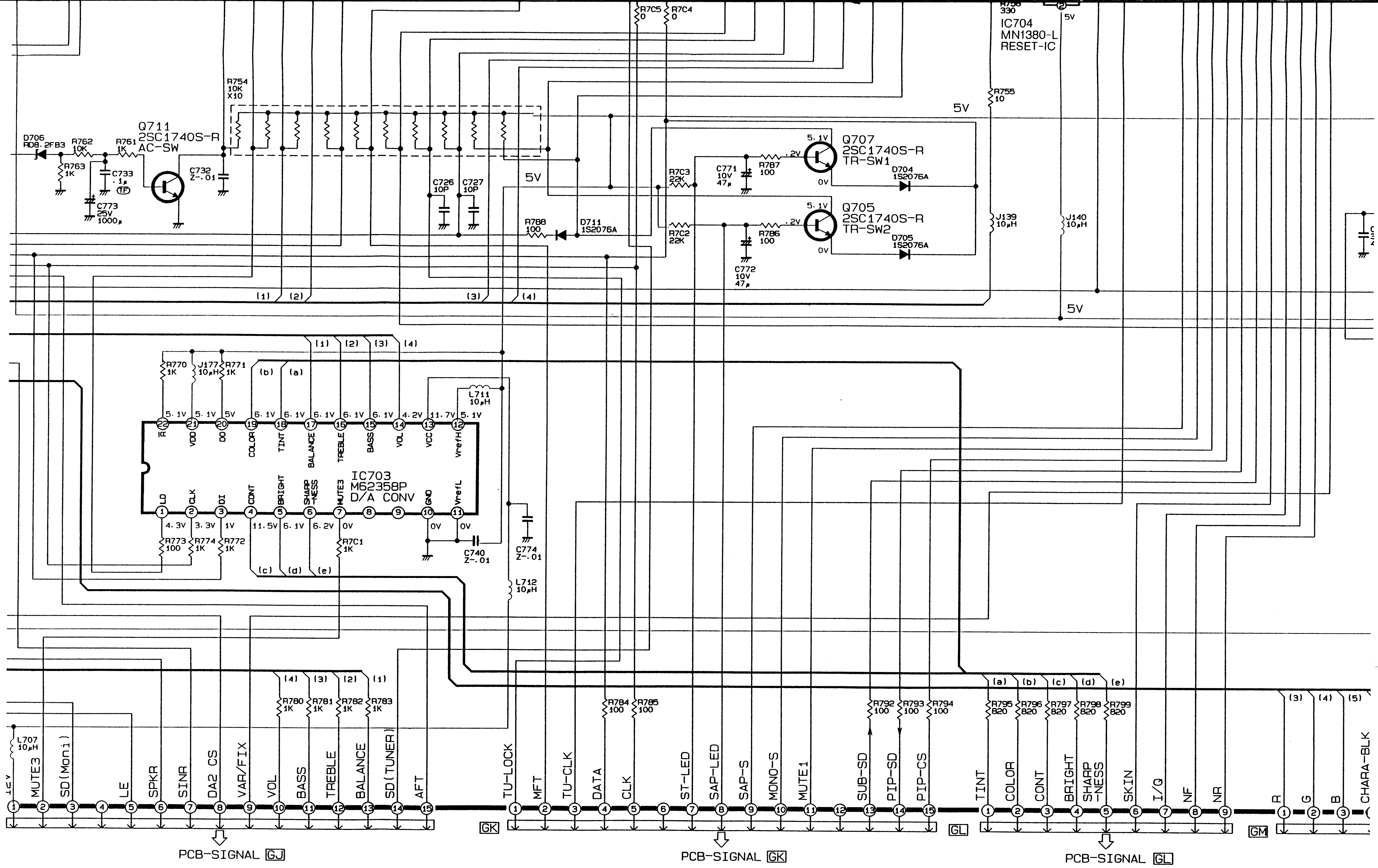
VS-40VA2
VS-45VA1
VS-45VA2
VS-50VA1
VS-50VA2
VS-60VA2
VS-45VA2CA
VS-50VA2CA
VS-60VA2CA(2/6)

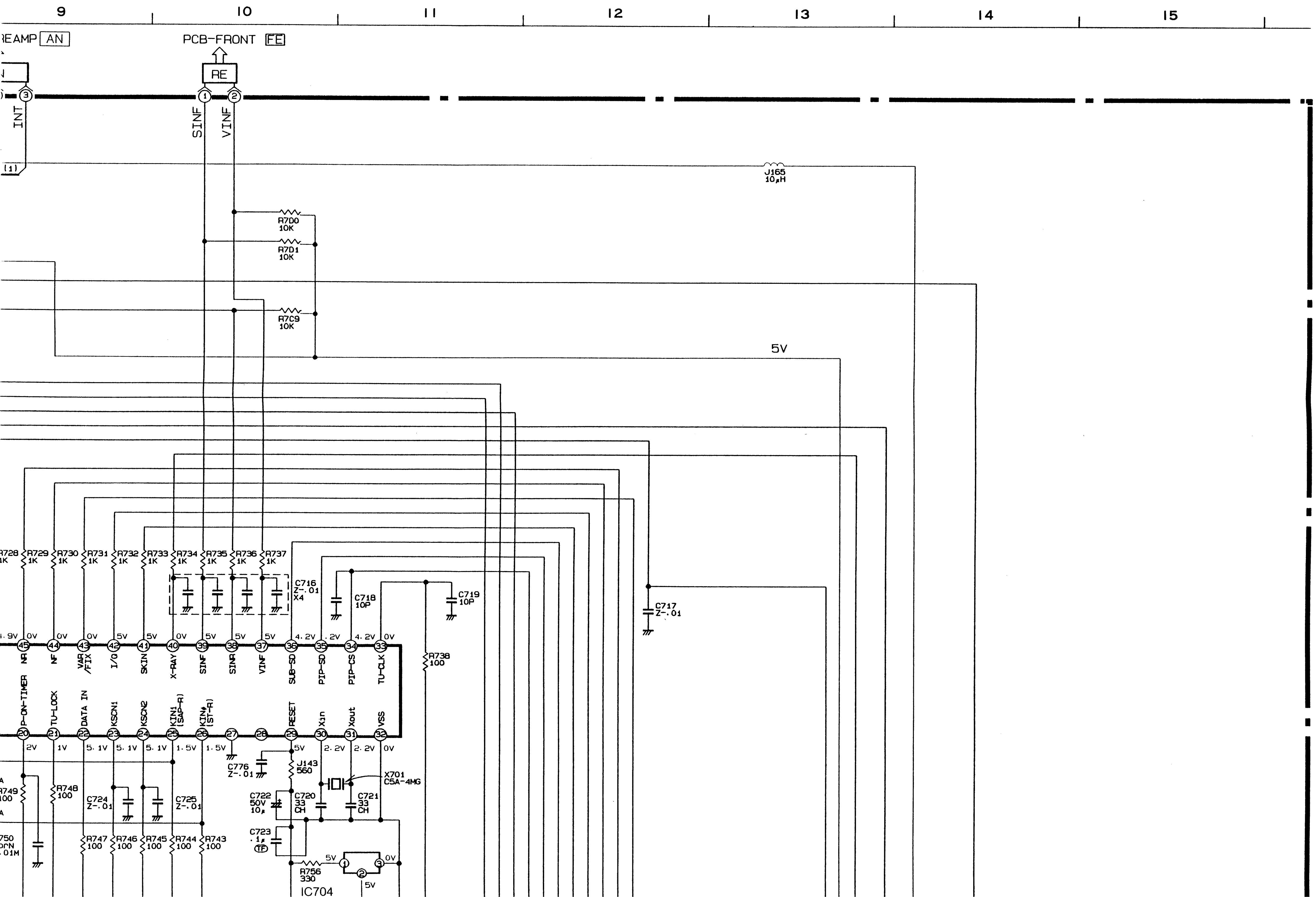

1
2
3
4
5
6
7
A
B
C
D
E
F
5V
(5)
5.1V
Q
R703
1K
0V
R701
33K
C701
16V
220μ
D701
1S2076A
R702
33K
0V
J
J
J
J
(6)
(5)
(4)
(3)
(6)
(5)
(4)
(3)
R705
56K
(3)
(4)
(5)
(6)
R714
33
R715
33
R716
33
R717
33
(2)
(1)
C704
330P
C705
100P
R712
470
R713
470
R704
10K
L701
10μH
C706
16V
47μ
C707
Z-.01
5V
3.7V
4.9V
0V
0V
0V
0V
0V
VCC
H-Sync
V-Sync
R
G
B
LED
CHARA-BLK
POWER
IC70
M37
μ-C
OSC1
OSC2
AC OFF
AFT
REMOTE
KSCN
DA2CS
(6235BLD)
3V
3V
0V
2.1V
5.1V
4.5V
L703
18μH
C731
C730
33
CH
C728
100P
C729
Z-.01
R760
100
R759
100
R758
100
R757
100
5V
L702
10μH
5V
C743
Z-.01
5V
0V
VCC
N.C
DRG
GND
IC702
E2PROM
R754
10K
X10
R764
D706
RD8.2FB3
R762
R761
Q711
2SC1740S-R
AC-SW

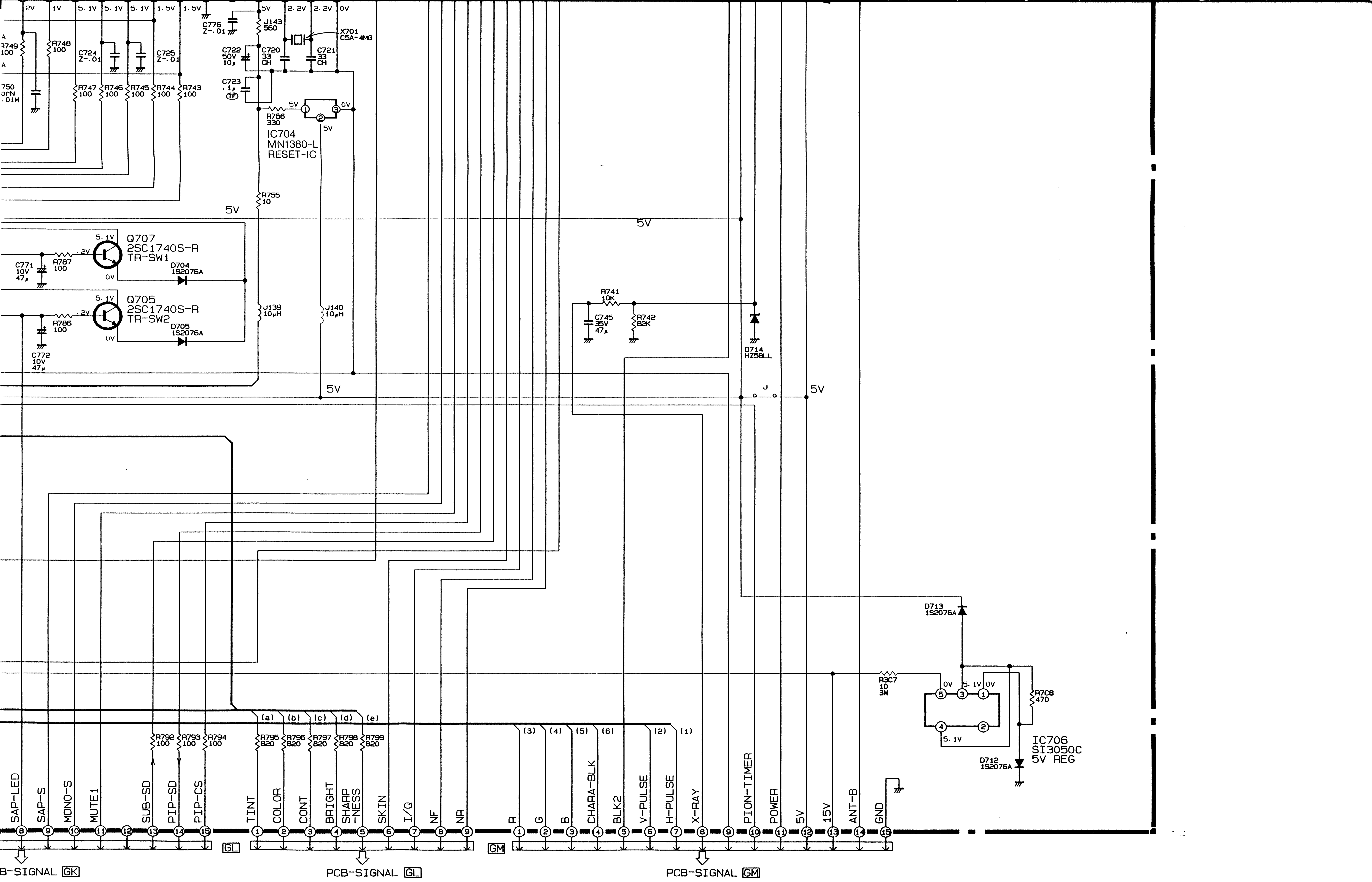
C
D
E
F
G
H
R705 56K
(3) (4) (5) (6)
R714 33
R715 33
R716 33
R717 33
(2)
(1)
C704 330P
C705 100P
R712 470
R713 470
R704 10K
L701 10μH
C706 16V 47μ
C707 Z-.01
5V
3.7V
4.9V
0V
64 VCC
63 H-Sync
62 V-Sync
61 R
60 G
59 B
58 LED
57 CHARA-BLK
POWER
IC70
M37
μ-C
1 OSC1
2 OSC2
3 AC OFF
4 AFT
5 REMOTE
6 KSCN4
7 DA2CS (62358LD)
8
9
3V
2.1V
5.1V
4.5V
L703 18μH
C731
C730 33 CH
C728 100P
C729 Z-.01
R760 100
R759 100
R758 100
R757 100
L702 10μH
C743 Z-.01
8 VCC
7 N.C
6 ORG
5 GND
1 CS
2 SK
3 DI
4 DO
IC702 E2PROM CAT35C102HP
3.4V
.2V
5.1V
R769 100
R768 100
R767 100
R754 10K X10
Q711 2SC1740S-R AC-SW
R764 1K
D706 RD8.2FB3
R762 10K
R761 1K
R763 1K
C733 .1μ TF
C773 25V 1000μ
C732 Z-.01
R770 1K
J177 10μH
R771 1K
(b) (a)
(c) (d) (e)
22 R
21 VDD
20 DO
19 COLOR
18 TINT
17 BALANCE
16 TREBLE
15 BASS
14 VOL
1 LD
2 CLK
3 DI
4 CONT
5 BRIGHT
6 SHARP-NESS
7 MUTE3
8
9
5.1V
6.1V
4.3V
3.3V
1V
11.5V
6.2V
IC703
M62358P
D/A CON
R773 100
R774 1K
R772 1K
R7C1 1K
IC702 CAT35C102HP
MEMORY 128×16 or 256×8
ADDRESS DECODER
Q715 2SC1740S-R SD-BUFFER
R781 33K
R785 27K
C763 50V 1μ NP
R783 100
C764 50V
R787 100
11.7V
11.3V
Q716 2SA1115E.F SD-DETE1
Q717 2SC1740S-R SD-DETE2
C765 10V 47μ NP
R789 10K
2.6V

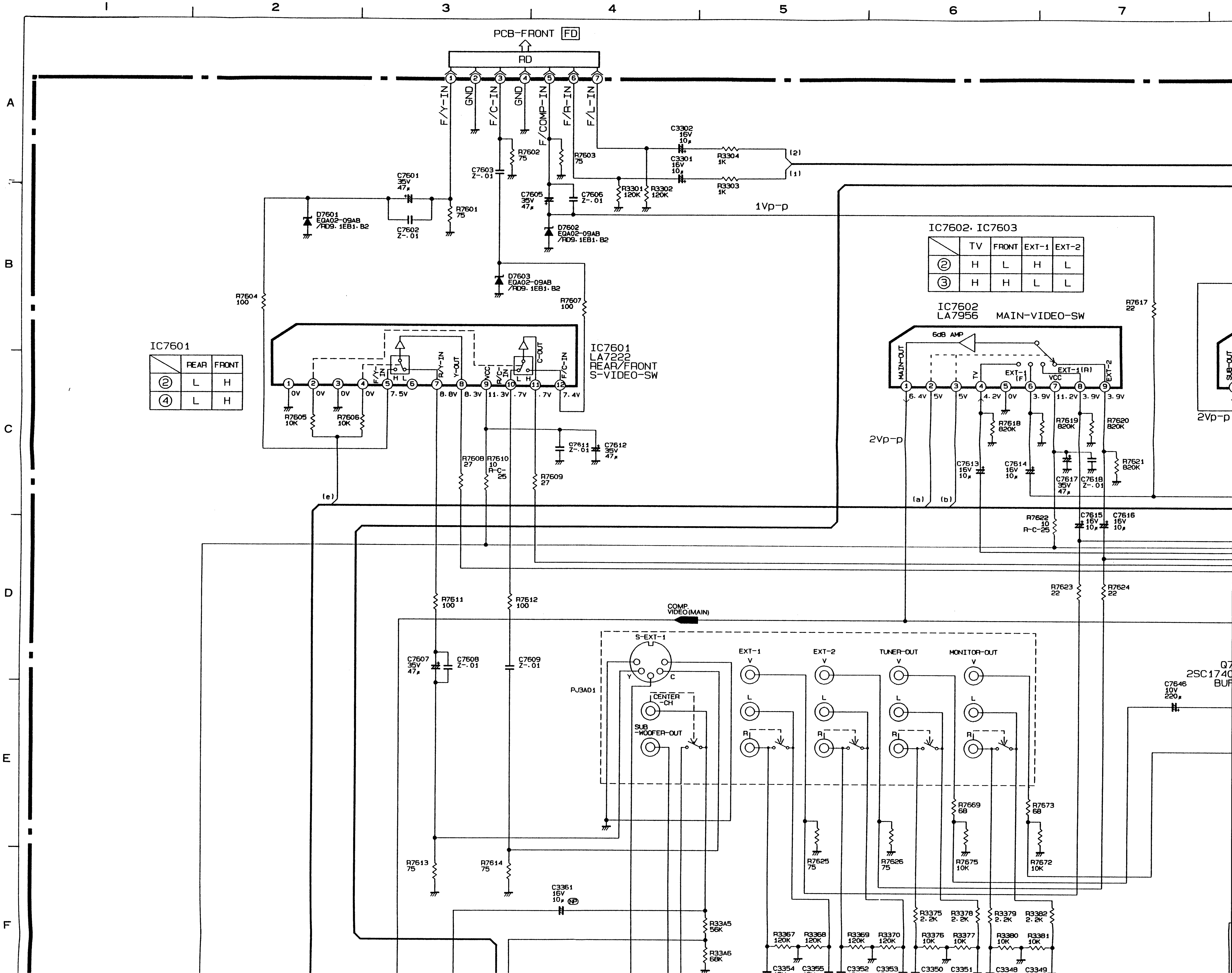

F
G
H
I
J
IC702
E2PROM
CAT35C102HP
5V
0V
VCC
N.C
ORG
GND
CS
SK
DI
DO
0V
3.4V
.2V
5.1V
R769 100
R768 100
R767 100
R754 10K X10
R764 1K
D706 RD8.2FB3
R762 10K
R763 1K
R761 1K
Q711
2SC1740S-R
AC-SW
C733 .1μ TF
C773 25V 1000μ
C732 Z-.01
(1)
(2)
(3)
(a)
(b)
(c)
(d)
(e)
R770 1K
J177 10μH
R771 1K
5.1V
5V
6.1V
RI
VDD
DO
COLOR
TINT
BALANCE
TREBLE
BASS
VOL
IC703
M62358F
D/A CON
LD
CLK
DI
CONT
BRIGHT
SHARP-NESS
MUTE3
4.3V
3.3V
1V
11.5V
6.1V
6.2V
0V
R773 100
R774 1K
R772 1K
R7C1 1K
IC702 CAT35C102HP
MEMORY 128×16 or 256×8
ADDRESS DECODER
DATA REGISTER
MODE DECODE LOGIC
BUFFER OUTPUT
CLOCK GENERATOR
Q715
2SC1740S-R
SD-BUFFER
R781 33K
R782 33K
R783 100
C763 50V 1μ NP
R785 27K
C764 50V 1μ
R784 2.2K
R786 390K
R787 100
11.3V
11.7V
Q716
2SA1115E.F
SD-DETE1
Q717
2SC1740S-R
SD-DETE2
5.5V
C765 10V 47μ NP
R788 1.5K
C766 .1μ TF
R789 10K
-1V
L708 1000μH
2.6V
0V
C762 Z-.01
C761 35V 47μ
L707 10μH
(4)
R780 1K
R781 1K
R782 1K
R783 1K
12V
MUTE3
SD(Moni)
LE
SPKR
SINR
DA2 CS
VAR/FIX
VOL
BASS
TREBLE
BALANCE
SD(TUNER)
GJ
PCB-SIGNAL GJ
PCB-μ-COM


5
6
7
8
9
10
11
12
PCB-CONTROL CF
RF
1 5V
2 GND
3 KSCN0
4 KSCN1
5 KSCN2
6 LED
7 RESET
8
PCB-PREAMP AN
RN
1 5V
2
3 INT
PCB-FRONT FE
RE
1 SINF
2 VINF
(1)
(2)
(3)
(4)
(5)
(6)
Q701
2SC1740S-R
RESET-SW
5.1V
0V
R703
1K
R701
33K
C701
16V
220μ
D701
1S2076A
R702
33K
R7C0
1KX3
R7D0
10K
R7D1
10K
R7C9
10K
R705
56K
C704
330P
C705
100P
R712
470
R713
470
R714
33
R715
33
R716
33
R717
33
R718
1K
R719
1K
R720
1K
R721
1K
R722
100
R723
100
R724
100
R726
1K
R727
1K
R728
1K
R729
1K
R730
1K
R731
1K
R732
1K
R733
1K
R734
1K
R735
1K
R736
1K
R737
1K
C751
MorN
-.01M
R704
10K
C716
Z-.01
X4
C718
10P
C719
10P
C717
Z-.01
L701
10μH
C706
16V
47μ
C707
Z-.01
5V
IC701
M37204M8-561SP
μ-CON
64 VCC
63 H-Sync
62 V-Sync
61 R
60 G
59 B
58 LED
57 CHARA-BLK
56 POWER
55 SAP-S
54 Mono-S
53 ANT-B
52 E2CS
51 DA2 CS (62359LD)
50 LE (66320LE)
49 CDD CS
48 BLK2
47 MUTE1
46 SPKR
45 NR
44 NF
43 VAR /FIX
42 I/O
41 SKIN
40 X-RAY
39 SINF
38 SINR
37 VINF
36 SUB-SD
35 PIP-SD
34 PIP-CS
33 TU-CLK
1 OSC1
2 OSC2
3 AC OFF
4 AFT
5 REMOTE
6 KSCN0
7 DA2CS (62358LD)
8
9
10
11
12
13 MFT-IN
14
15 SD2IN (Mon1)
16 SD1IN (Tuner)
17 CLK/KOUT1
18 DATA0 /KOUT0
19
20 P-ON-TIMER
21 TU-LOCK
22 DATA IN
23 KSCN1
24 KSCN2
25 KIN1 (SAP-R)
26 KIN0 (ST-R)
27
28
29 RESET
30 Xin
31 Xout
32 VSS
5V
3.7V
4.9V
0V
0V
0V
0V
0V
4.9V
5V
5V
0V
0V
4.9V
0V
5V
0V
0V
4.9V
0V
0V
0V
5V
5V
0V
5V
5V
5V
4.2V
2V
4.2V
0V
3V
3V
0V
2.1V
5.1V
4.5V
5.1V
2.5V
3V
3.5V
.2V
2V
1V
5.1V
5.1V
5.1V
1.5V
1.5V
5V
2.2V
2.2V
0V
L703
18μH
C731
C730
33
CH
C728
100P
C729
Z-.01
R760
100
R759
100
R758
100
R757
100
R753
1K
R752
1K
D716
1S2076A
D717
1S2076A
R749
100
R748
100
C750
MorN
-.01M
R751
100
R750
100
R7C5
0
R7C4
0
C724
Z-.01
C725
Z-.01
R747
100
R746
100
R745
100
R744
100
R743
100
C776
Z-.01
J143
560
X701
C5A-4MG
C722
50V
10μ
C720
33
CH
C721
33
CH
C723
.1μ
TF
R738
100
R756
330
5V
0V
5V
IC704
MN1380-L
RESET-IC
R755
10
5V
R754
10K
X10
Q711
2SC1740S-R
D706
R762
R761
5.1V
Q707


R7C5
0
R7C4
0
R756
330
5V
IC704
MN1380-L
RESET-IC
R755
10
5V
R754
10K
X10
Q711
2SC1740S-R
AC-SW
D706
RD8.2FB3
R762
10K
R761
1K
R763
1K
C733
.1μ
TF
C773
25V
1000μ
C732
Z-.01
C726
10P
C727
10P
5V
R788
100
D711
1S2076A
Q707
2SC1740S-R
TR-SW1
5.1V
.2V
0V
R7C3
22K
C771
10V
47μ
R787
100
D704
1S2076A
Q705
2SC1740S-R
TR-SW2
R7C2
22K
R786
100
D705
1S2076A
C772
10V
47μ
J139
10μH
J140
10μH
(1)
(2)
(3)
(4)
5V
R770
1K
J177
10μH
R771
1K
(b)
(a)
L711
10μH
5.1V
5.1V
5V
6.1V
6.1V
6.1V
6.1V
6.1V
4.2V
11.7V
5.1V
R
VDD
DO
COLOR
TINT
BALANCE
TREBLE
BASS
VOL
VCC
VrefH
IC703
M62358P
D/A CONV
LD
CLK
DI
CONT
BRIGHT
SHARP-NESS
MUTE3
GND
VrefL
4.3V
3.3V
1V
11.5V
6.1V
6.2V
0V
0V
0V
R773
100
R774
1K
R772
1K
R7C1
1K
C740
Z-.01
C774
Z-.01
(c)
(d)
(e)
L712
10μH
R780
1K
R781
1K
R782
1K
R783
1K
L707
10μH
12V
MUTE3
SD(Moni)
LE
SPKR
SINR
DA2 CS
VAR/FIX
VOL
BASS
TREBLE
BALANCE
SD(TUNER)
AFT
PCB-SIGNAL GJ
GK
TU-LOCK
MFT
TU-CLK
DATA
CLK
ST-LED
SAP-LED
SAP-S
MONO-S
MUTE1
SUB-SD
PIP-SD
PIP-CS
R784
100
R785
100
R792
100
R793
100
R794
100
PCB-SIGNAL GK
GL
R795
820
R796
820
R797
820
R798
820
R799
820
TINT
COLOR
CONT
BRIGHT
SHARP-NESS
SKIN
I/Q
NF
NR
PCB-SIGNAL GL
GM
(3)
(4)
(5)
R
G
B
CHARA-BLK


9
10
11
12
13
14
15
REAMP AN
PCB-FRONT FE
RE
INT
SINF
VINF
J165
10μH
R700
10K
R701
10K
R7C9
10K
5V
R728 1K
R729 1K
R730 1K
R731 1K
R732 1K
R733 1K
R734 1K
R735 1K
R736 1K
R737 1K
C716
Z-.01
X4
C718
10P
C719
10P
C717
Z-.01
R738
100
NR
NF
VAR /FIX
I/O
SKIN
X-RAY
SINF
SINR
VINF
SUB-SD
PIP-SD
PIP-CS
TU-CLK
P-ON-TIMER
TU-LOCK
DATA IN
KSCN1
KSCN2
KIN1 (SAP-R)
KIN4 (ST-R)
RESET
Xin
Xout
VSS
C776
Z-.01
J143
560
X701
C5A-4MG
C722
50V
10μ
C720
33
CH
C721
33
CH
C723
.1μ
TF
R756
330
IC704
R748
100
R749
100
C724
Z-.01
C725
Z-.01
R747 100
R746 100
R745 100
R744 100
R743 100
R750
.01M


2V
1V
5.1V
5.1V
5.1V
1.5V
1.5V
5V
2.2V
2.2V
0V
R749
100
R748
100
C724
Z-.01
C725
Z-.01
R747
100
R746
100
R745
100
R744
100
R743
100
C776
Z-.01
J143
560
X701
C5A-4MG
C722
50V
10μ
C720
33
CH
C721
33
CH
C723
.1μ
TF
R756
330
5V
0V
5V
IC704
MN1380-L
RESET-IC
R755
10
5V
5V
Q707
2SC1740S-R
TR-SW1
5.1V
.2V
0V
R787
100
C771
10V
47μ
D704
1S2076A
Q705
2SC1740S-R
TR-SW2
5.1V
.2V
0V
R786
100
C772
10V
47μ
D705
1S2076A
J139
10μH
J140
10μH
R741
10K
C745
35V
47μ
R742
82K
D714
HZ5BLL
J
5V
5V
D713
1S2076A
R3C7
10
3W
0V
5.1V
0V
5.1V
R7C8
470
IC706
SI3050C
5V REG
D712
1S2076A
(a)
(b)
(c)
(d)
(e)
(3)
(4)
(5)
(6)
(2)
(1)
R792
100
R793
100
R794
100
R795
820
R796
820
R797
820
R798
820
R799
820
SAP-LED
SAP-S
MONO-S
MUTE1
SUB-SD
PIP-SD
PIP-CS
TINT
COLOR
CONT
BRIGHT
SHARP-NESS
SKIN
I/Q
NF
NR
R
G
B
CHARA-BLK
BLK2
V-PULSE
H-PULSE
X-RAY
PION-TIMER
POWER
5V
15V
ANT-B
GND
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
①
②
③
④
⑤
⑥
⑦
⑧
⑨
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
GL
GM
B-SIGNAL GK
PCB-SIGNAL GL
PCB-SIGNAL GM



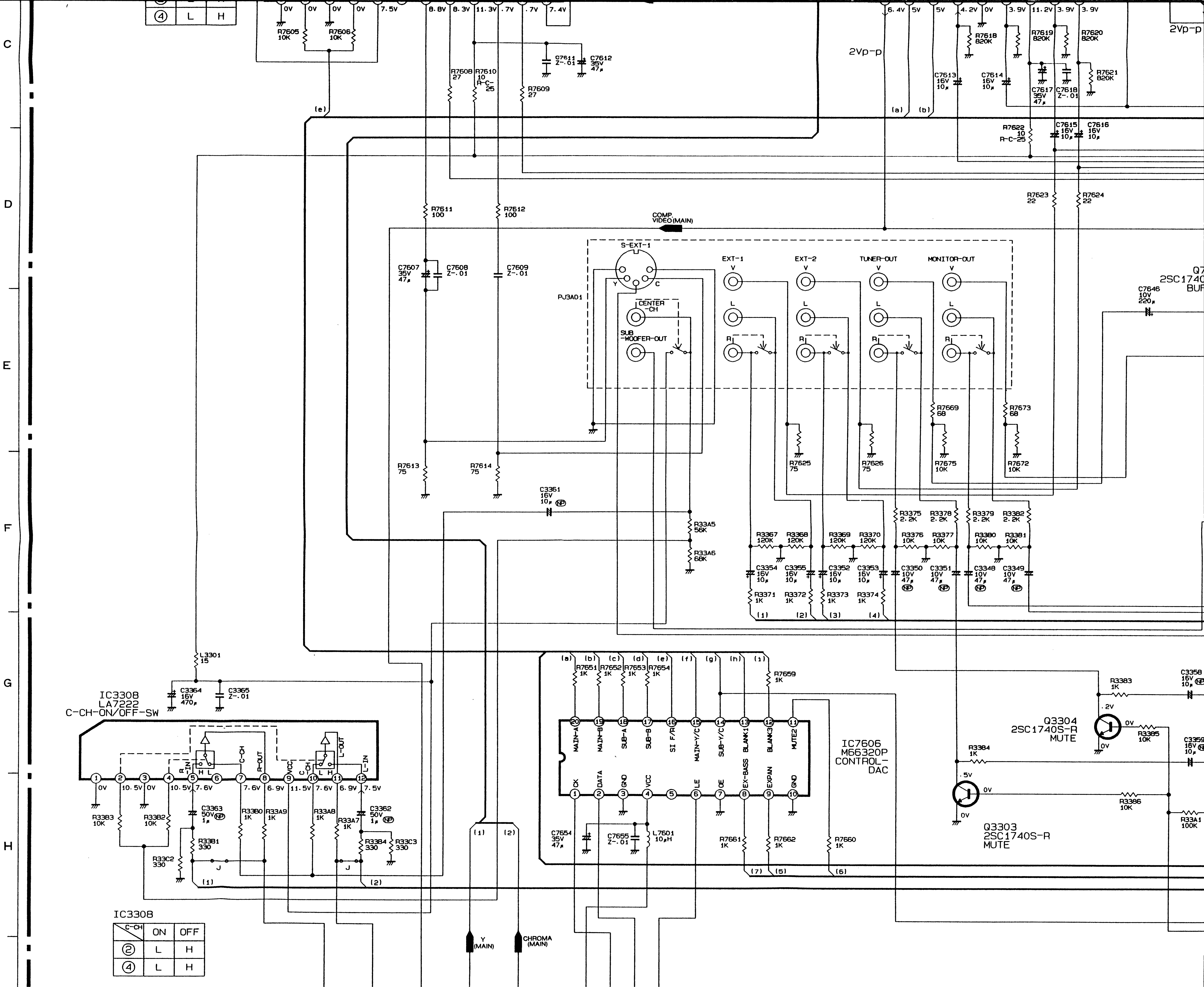
1
2
3
4
5
6
7
A
B
C
D
E
F
PCB-FRONT FD
RD
F/Y-IN
GND
F/C-IN
GND
F/COMP-IN
F/R-IN
F/L-IN
C3302 16V 10µ
C3301 16V 10µ
R3304 1K
R3303 1K
R3301 120K
R3302 120K
(2)
(1)
1Vp-p
R7602 75
R7603 75
C7603 Z-.01
C7601 35V 47µ
C7602 Z-.01
R7601 75
D7601 EQA02-09AB /RD9.1EB1.B2
C7605 35V 47µ
C7606 Z-.01
D7602 EQA02-09AB /RD9.1EB1.B2
D7603 EQA02-09AB /RD9.1EB1.B2
R7604 100
R7607 100
IC7601
IC7601 LA7222 REAR/FRONT S-VIDEO-SW
F/Y-IN
R/Y-IN
Y-OUT
VCC
R/C-IN
C-OUT
F/C-IN
H L
L H
0V
0V
0V
0V
7.5V
8.8V
8.3V
11.3V
.7V
.7V
7.4V
R7605 10K
R7606 10K
C7611 Z-.01
C7612 35V 47µ
R7608 27
R7610 10 R-C-25
R7609 27
(e)
IC7602, IC7603
IC7602 LA7956 MAIN-VIDEO-SW
6dB AMP
MAIN-OUT
TV
EXT-1 (F)
VCC
EXT-1 (R)
EXT-2
6.4V
5V
5V
4.2V
0V
3.9V
11.2V
3.9V
3.9V
R7617 22
R7618 820K
R7619 820K
R7620 820K
R7621 820K
C7613 16V 10µ
C7614 16V 10µ
C7617 35V 47µ
C7618 Z-.01
2Vp-p
(a)
(b)
R7622 10 R-C-25
C7615 16V 10µ
C7616 16V 10µ
R7623 22
R7624 22
SUB-OUT
2Vp-p
R7611 100
R7612 100
COMP. VIDEO (MAIN)
C7607 35V 47µ
C7608 Z-.01
C7609 Z-.01
S-EXT-1
Y
C
PJ3A01
CENTER-CH
SUB-WOOFER-OUT
EXT-1
EXT-2
TUNER-OUT
MONITOR-OUT
V
L
R
R7669 68
R7673 68
R7625 75
R7626 75
R7675 10K
R7672 10K
R7613 75
R7614 75
C3361 16V 10µ NP
R33A5 56K
R33A6 68K
R3367 120K
R3368 120K
R3369 120K
R3370 120K
R3375 2.2K
R3378 2.2K
R3376 10K
R3377 10K
R3379 2.2K
R3382 2.2K
R3380 10K
R3381 10K
C3354
C3355
C3352
C3353
C3350
C3351
C3348
C3349
Q7
2SC1740
BUF
C7646 10V 220µ

IC7602, IC7603

	TV	FRONT	EXT-1	EXT-2
②	H	L	H	L
③	H	H	L	L

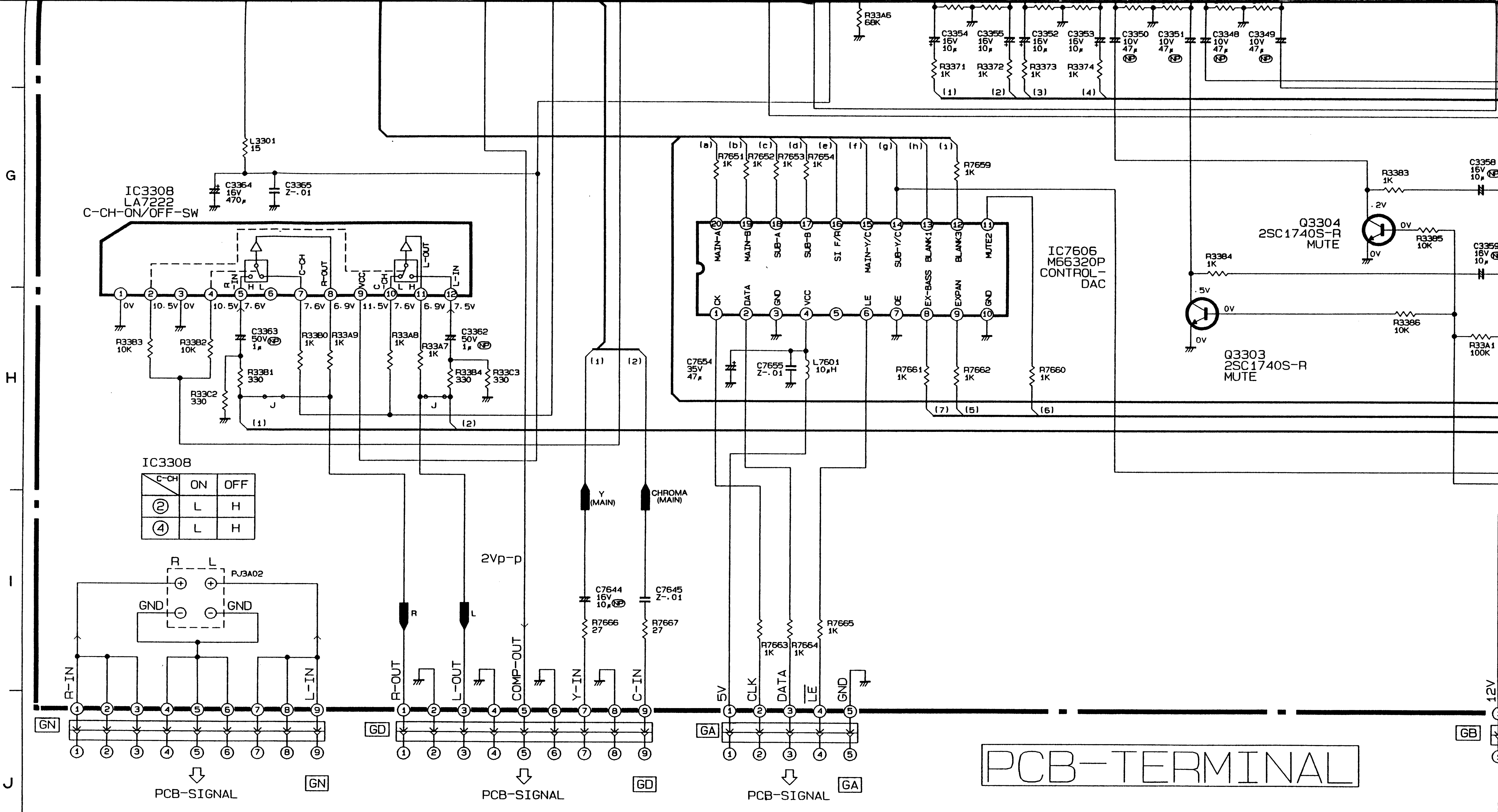
IC7601

	REAR	FRONT
②	L	H
④	L	H


C
D
E
F
G
H
④ L H
0V 0V 0V 0V 7.5V
R7605 10K
R7606 10K
8.8V 8.3V 11.3V .7V .7V 7.4V
C7611 Z-.01
C7612 35V 47μ
R7608 27
R7610 10 R-C-25
R7609 27
(e)
R7611 100
R7612 100
C7607 35V 47μ
C7608 Z-.01
C7609 Z-.01
R7613 75
R7614 75
COMP. VIDEO(MAIN)
S-EXT-1
Y
C
PJ3A01
CENTER -CH
SUB -WOOFER-OUT
EXT-1
EXT-2
TUNER-OUT
MONITOR-OUT
V
L
R
2Vp-p
6.4V 5V 5V 4.2V 0V 3.9V 11.2V 3.9V 3.9V
R7618 820K
R7619 820K
R7620 820K
R7621 820K
C7613 16V 10μ
C7614 16V 10μ
C7617 35V 47μ
C7618 Z-.01
(a) (b)
R7622 10 R-C-25
C7615 16V 10μ
C7616 16V 10μ
R7623 22
R7624 22
Q7
2SC1740
BUF
C7646 10V 220μ
R7669 68
R7673 68
R7625 75
R7626 75
R7675 10K
R7672 10K
C3361 16V 10μ NP
R33A5 56K
R33A6 68K
R3367 120K
R3368 120K
R3369 120K
R3370 120K
R3375 2.2K
R3378 2.2K
R3379 2.2K
R3382 2.2K
R3376 10K
R3377 10K
R3380 10K
R3381 10K
C3354 16V 10μ
C3355 16V 10μ
C3352 16V 10μ
C3353 16V 10μ
C3350 10V 47μ NP
C3351 10V 47μ NP
C3348 10V 47μ NP
C3349 10V 47μ NP
R3371 1K
R3372 1K
R3373 1K
R3374 1K
(1) (2) (3) (4)
L3301 15
C3364 16V 470μ
C3365 Z-.01
IC3308
LA7222
C-CH-ON/OFF-SW
R-IN
C-CH
R-OUT
VCC
C-CH
L-OUT
L-IN
H L
L H
0V 10.5V 0V 10.5V 7.6V 7.6V 6.9V 11.5V 7.6V 6.9V 7.5V
R3383 10K
R3382 10K
C3363 50V 1μ NP
R3380 1K
R33A9 1K
R33A8 1K
R33A7 1K
C3362 50V 1μ NP
R33B1 330
R33C2 330
R33B4 330
R33C3 330
J
(1)
(2)
Y (MAIN)
CHROMA (MAIN)
(a) (b) (c) (d) (e) (f) (g) (h) (i)
R7651 1K
R7652 1K
R7653 1K
R7654 1K
R7659 1K
MAIN-A
MAIN-B
SUB-A
SUB-B
SI F/R
MAIN-Y/C
SUB-Y/C
BLANK1
BLANK3
MUTE2
CK
DATA
GND
VCC
LE
OE
EX-BASS
EXPAN
GND
IC7606
M66320P
CONTROL-DAC
C7654 35V 47μ
C7655 Z-.01
L7601 10μH
R7661 1K
R7662 1K
R7660 1K
(7) (5) (6)
R3383 1K
C3358 16V 10μ NP
.2V
0V
0V
Q3304
2SC1740S-R
MUTE
R3385 10K
C3359 16V 10μ
R3384 1K
.5V
0V
0V
R3386 10K
R33A1 100K
Q3303
2SC1740S-R
MUTE

IC3308

C-CH	ON	OFF
②	L	H
④	L	H



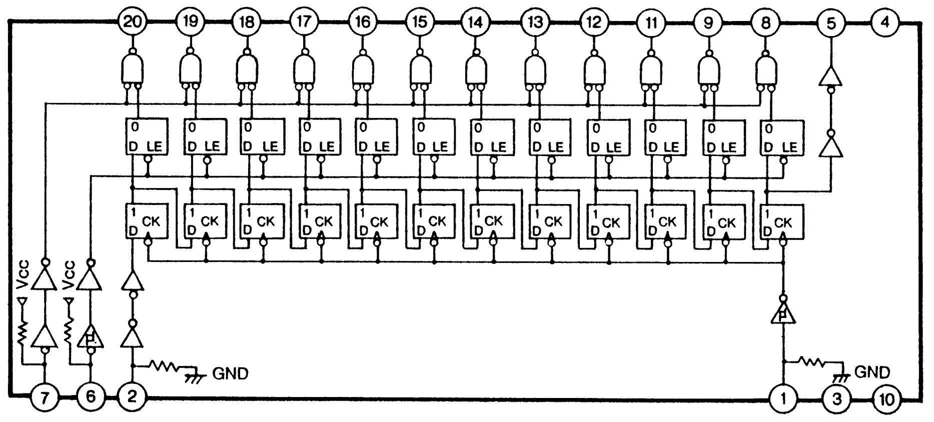
G
H
I
J
K
IC3308
LA7222
C-CH-ON/OFF-SW
L3301 15
C3364 16V 470μ
C3365 Z-.01
R-IN
C-CH
R-OUT
VCC
C-CH
L-OUT
L-IN
H L
L H
0V
10.5V
0V
10.5V
7.6V
7.6V
6.9V
11.5V
7.6V
6.9V
7.5V
R3383 10K
R3382 10K
C3363 50V 1μ
R3381 330
R33C2 330
R3380 1K
R33A9 1K
R33A8 1K
R33A7 1K
C3362 50V 1μ
R3384 330
R33C3 330
J
J
(1)
(2)
R3346 68K
C3354 16V 10μ
C3355 16V 10μ
C3352 16V 10μ
C3353 16V 10μ
C3350 10V 47μ
C3351 10V 47μ
C3348 10V 47μ
C3349 10V 47μ
R3371 1K
R3372 1K
R3373 1K
R3374 1K
(1) (2) (3) (4)
(a) (b) (c) (d) (e) (f) (g) (h) (i)
R7651 1K
R7652 1K
R7653 1K
R7654 1K
R7659 1K
MAIN-A
MAIN-B
SUB-A
SUB-B
SI F/R
MAIN-Y/C
SUB-Y/C
BLANK1
BLANK3
MUTE2
CK
DATA
GND
VCC
LE
OE
EX-BASS
EXPAN
GND
IC7606
M66320P
CONTROL-DAC
C7654 35V 47μ
C7655 Z-.01
L7601 10μH
R7661 1K
R7662 1K
R7660 1K
(7) (5) (6)
Q3304
2SC1740S-R
MUTE
R3383 1K
.2V
0V
0V
R3385 10K
R3384 1K
.5V
0V
0V
R3386 10K
R33A1 100K
Q3303
2SC1740S-R
MUTE
C3358 16V 10μ
C3359 16V 10μ
(1)
(2)
Y (MAIN)
CHROMA (MAIN)
2Vp-p
C7644 16V 10μ
C7645 Z-.01
R7666 27
R7667 27
R
L
PJ3A02
R
L
GND
GND
R7663 1K
R7664 1K
R7665 1K
R-IN
L-IN
R-OUT
L-OUT
COMP-OUT
Y-IN
C-IN
5V
CLK
DATA
LE
GND
12V
GN
GD
GA
GB
PCB-SIGNAL
PCB-SIGNAL
PCB-SIGNAL

IC3308

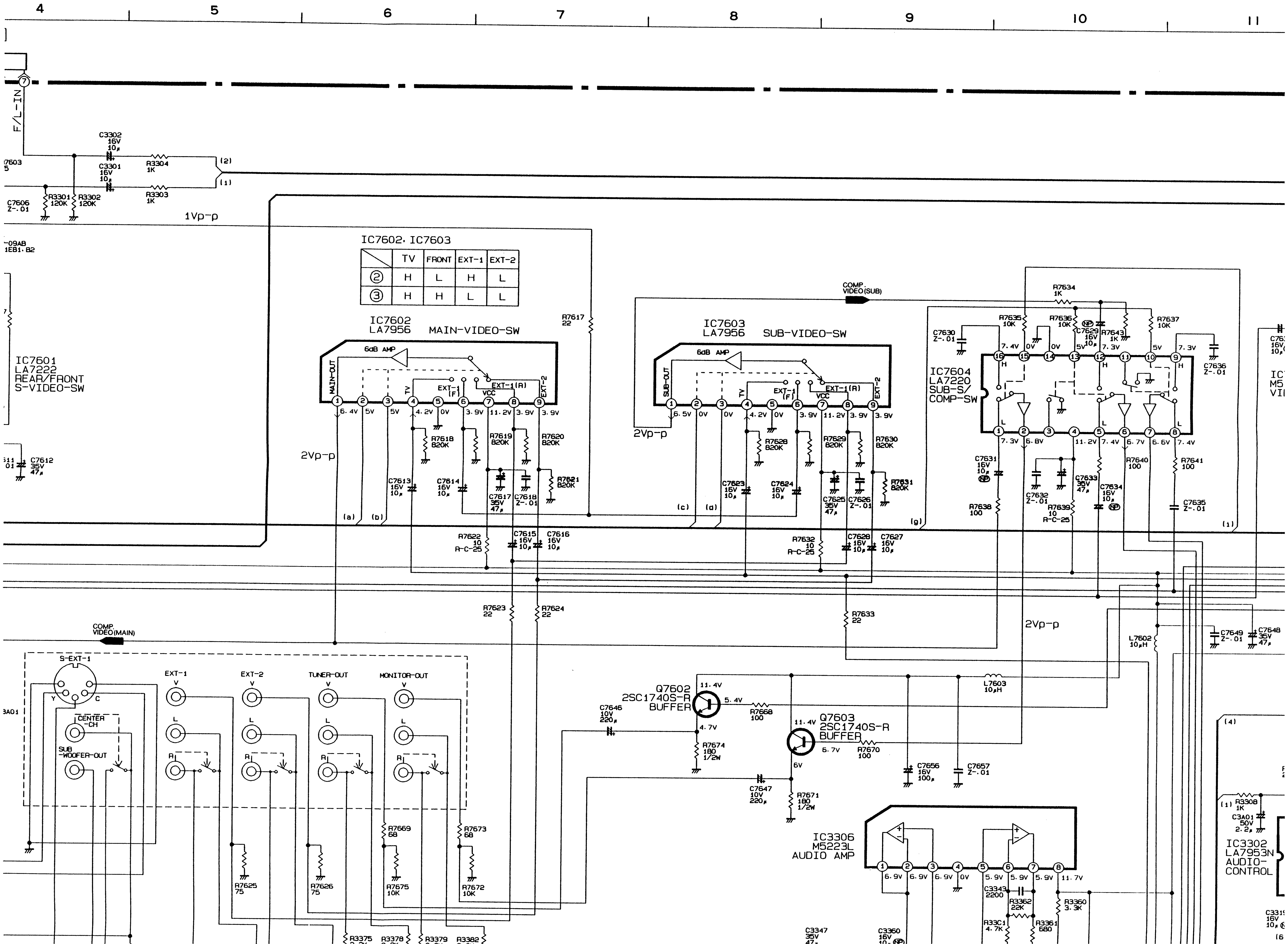
C-CH	ON	OFF
②	L	H
④	L	H

PCB-TERMINAL

IC7606 M66320P

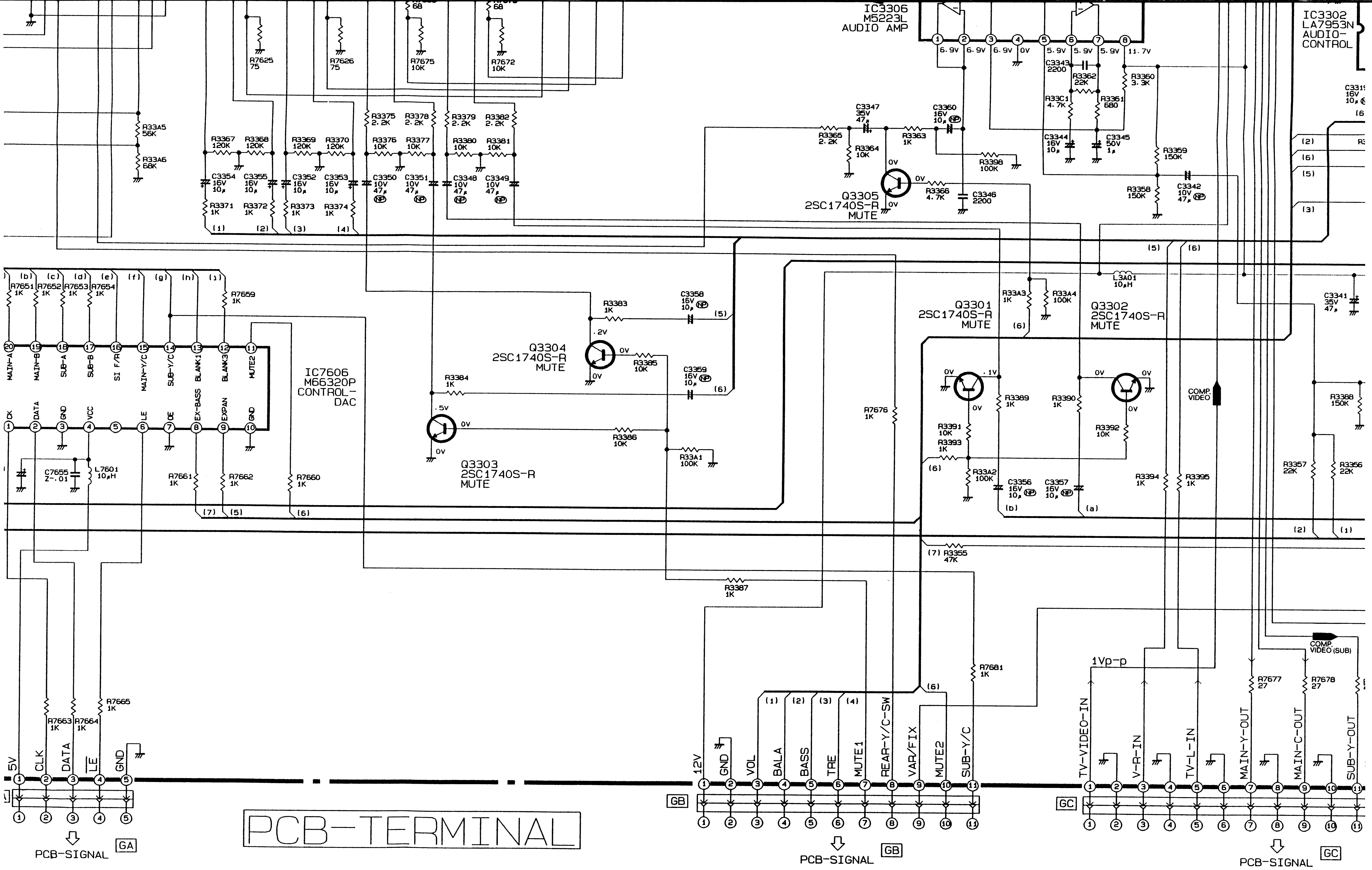


20 19 18 17 16 15 14 13 12 11 9 8 5 4
D LE
D CK
Vcc
Vcc
GND
GND
7 6 2 1 3 10

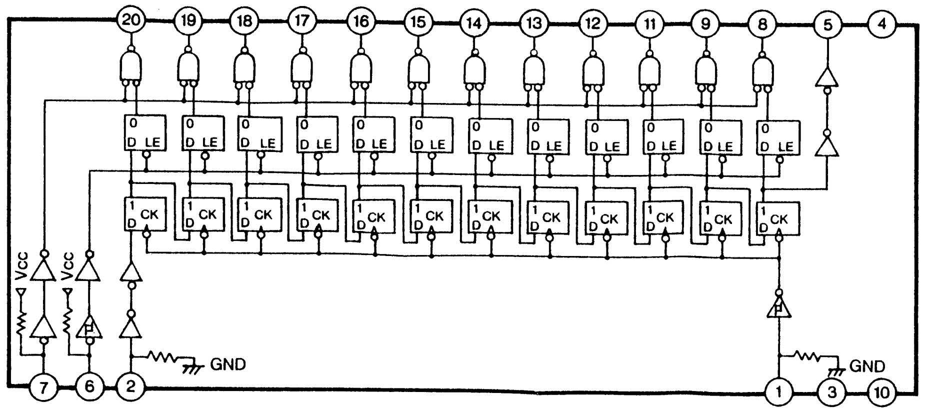

4
5
6
7
8
9
10
11
F/L-IN
C3302 16V 10μ
C3301 16V 10μ
R3304 1K
R3303 1K
R3301 120K
R3302 120K
C7606 Z-.01
1Vp-p
IC7601 LA7222 REAR/FRONT S-VIDEO-SW
C7612 35V 47μ
IC7602 LA7956 MAIN-VIDEO-SW
6dB AMP
MAIN-OUT
TV
EXT-1 (F)
EXT-1 (R)
VCC
EXT-2
6.4V
5V
5V
4.2V
0V
3.9V
11.2V
3.9V
3.9V
2Vp-p
R7617 22
R7618 820K
R7619 820K
R7620 820K
R7621 820K
C7613 16V 10μ
C7614 16V 10μ
C7617 35V 47μ
C7618 Z-.01
R7622 10 R-C-25
C7615 16V 10μ
C7616 16V 10μ
R7623 22
R7624 22
COMP. VIDEO (MAIN)
COMP. VIDEO (SUB)
IC7603 LA7956 SUB-VIDEO-SW
SUB-OUT
6.5V
0V
0V
4.2V
0V
3.9V
11.2V
3.9V
3.9V
R7628 820K
R7629 820K
R7630 820K
R7631 820K
C7623 16V 10μ
C7624 16V 10μ
C7625 35V 47μ
C7626 Z-.01
R7632 10 R-C-25
C7628 16V 10μ
C7627 16V 10μ
R7633 22
(a)
(b)
(c)
(d)
(g)
(i)
IC7604 LA7220 SUB-S/ COMP-SW
R7634 1K
R7635 10K
R7636 10K
C7629 16V 10μ NP
R7643 1K
R7637 10K
C7630 Z-.01
C7636 Z-.01
7.4V
0V
0V
5V
7.3V
5V
7.3V
H
L
7.3V
6.8V
11.2V
7.4V
6.7V
6.6V
7.4V
C7631 16V 10μ NP
R7638 100
C7632 Z-.01
C7633 35V 47μ
C7634 16V 10μ NP
R7639 10 R-C-25
R7640 100
R7641 100
C7635 Z-.01
L7602 10μH
C7649 Z-.01
C7648 35V 47μ
2Vp-p
S-EXT-1
Y
C
CENTER -CH
SUB -WOOFER-OUT
EXT-1
EXT-2
TUNER-OUT
MONITOR-OUT
V
L
R
R7625 75
R7626 75
R7669 68
R7675 10K
R7673 68
R7672 10K
R3375
R3378
R3379
R3382
Q7602 2SC1740S-R BUFFER
11.4V
5.4V
4.7V
R7668 100
C7646 10V 220μ
R7674 180 1/2W
Q7603 2SC1740S-R BUFFER
11.4V
6.7V
6V
R7670 100
C7647 10V 220μ
R7671 180 1/2W
L7603 10μH
C7656 16V 100μ
C7657 Z-.01
IC3306 M5223L AUDIO AMP
6.9V
6.9V
6.9V
0V
5.9V
5.9V
5.9V
5.9V
11.7V
C3343 2200
R3362 22K
R3360 3.3K
R3361 680
R33C1 4.7K
C3347 35V
C3360 16V NP
(4)
(1)
R3308 1K
C3A01 50V 2.2μ
IC3302 LA7953N AUDIO- CONTROL

IC7602, IC7603

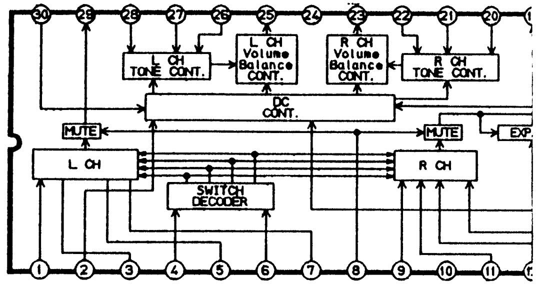
	TV	FRONT	EXT-1	EXT-2
②	H	L	H	L
③	H	H	L	L

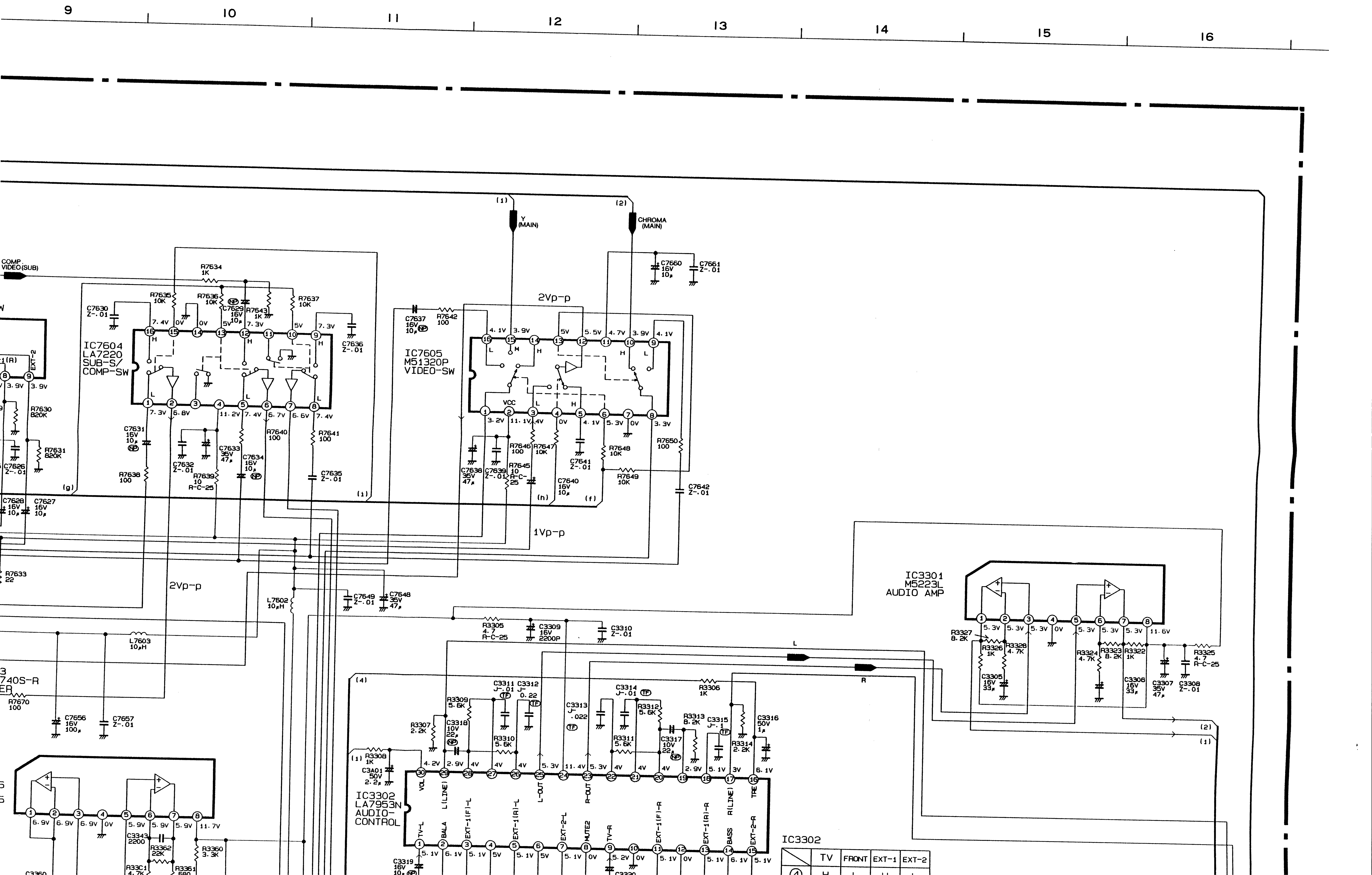

IC3306
M5223L
AUDIO AMP
IC3302
LA7953N
AUDIO-
CONTROL
6.9V 6.9V 6.9V 0V 5.9V 5.9V 5.9V 11.7V
R7625 75
R7626 75
R7675 10K
R7672 10K
R33A5 56K
R33A6 68K
R3367 120K
R3368 120K
R3369 120K
R3370 120K
R3375 2.2K
R3378 2.2K
R3379 2.2K
R3382 2.2K
R3376 10K
R3377 10K
R3380 10K
R3381 10K
C3354 16V 10μ
C3355 16V 10μ
C3352 16V 10μ
C3353 16V 10μ
C3350 10V 47μ NP
C3351 10V 47μ NP
C3348 10V 47μ NP
C3349 10V 47μ NP
R3371 1K
R3372 1K
R3373 1K
R3374 1K
C3347 35V 47μ
C3360 16V 10μ NP
R3365 2.2K
R3364 10K
R3363 1K
R3398 100K
C3346 2200
R3366 4.7K
Q3305
2SC1740S-R
MUTE
C3343 2200
R3362 22K
R33C1 4.7K
R3361 680
R3360 3.3K
C3344 16V 10μ
C3345 50V 1μ
R3359 150K
R3358 150K
C3342 10V 47μ NP
C3319 16V 10μ
L3A01 10μH
C3341 35V 47μ
R7651 1K
R7652 1K
R7653 1K
R7654 1K
R7659 1K
IC7606
M66320P
CONTROL-
DAC
MAIN-A MAIN-B SUB-A SUB-B SI F/R MAIN-Y/C SUB-Y/C BLANK1 BLANK3 MUTE2
CK DATA GND VCC LE OE EX-BASS EXPAN GND
R3383 1K
C3358 16V 10μ NP
Q3304
2SC1740S-R
MUTE
R3385 10K
C3359 16V 10μ NP
R3384 1K
R3386 10K
R33A1 100K
Q3303
2SC1740S-R
MUTE
C7655 Z-.01
L7601 10μH
R7661 1K
R7662 1K
R7660 1K
R7676 1K
R33A3 1K
R33A4 100K
Q3301
2SC1740S-R
MUTE
Q3302
2SC1740S-R
MUTE
R3389 1K
R3390 1K
R3391 10K
R3392 10K
R3393 1K
R33A2 100K
C3356 16V 10μ NP
C3357 16V 10μ NP
R3394 1K
R3395 1K
COMP. VIDEO
R3388 150K
R3357 22K
R3356 22K
R3355 47K
R3387 1K
R7681 1K
1Vp-p
COMP. VIDEO (SUB)
R7677 27
R7678 27
R7663 1K
R7664 1K
R7665 1K
5V CLK DATA LE GND
12V GND VOL BALA BASS TRE MUTE1 REAR-Y/C-SW VAR/FIX MUTE2 SUB-Y/C
TV-VIDEO-IN V-R-IN TV-L-IN MAIN-Y-OUT MAIN-C-OUT SUB-Y-OUT
PCB-TERMINAL
GA
GB
GC
PCB-SIGNAL GA
PCB-SIGNAL GB
PCB-SIGNAL GC

IC7606 M66320P


D LE
D CK
Vcc
GND

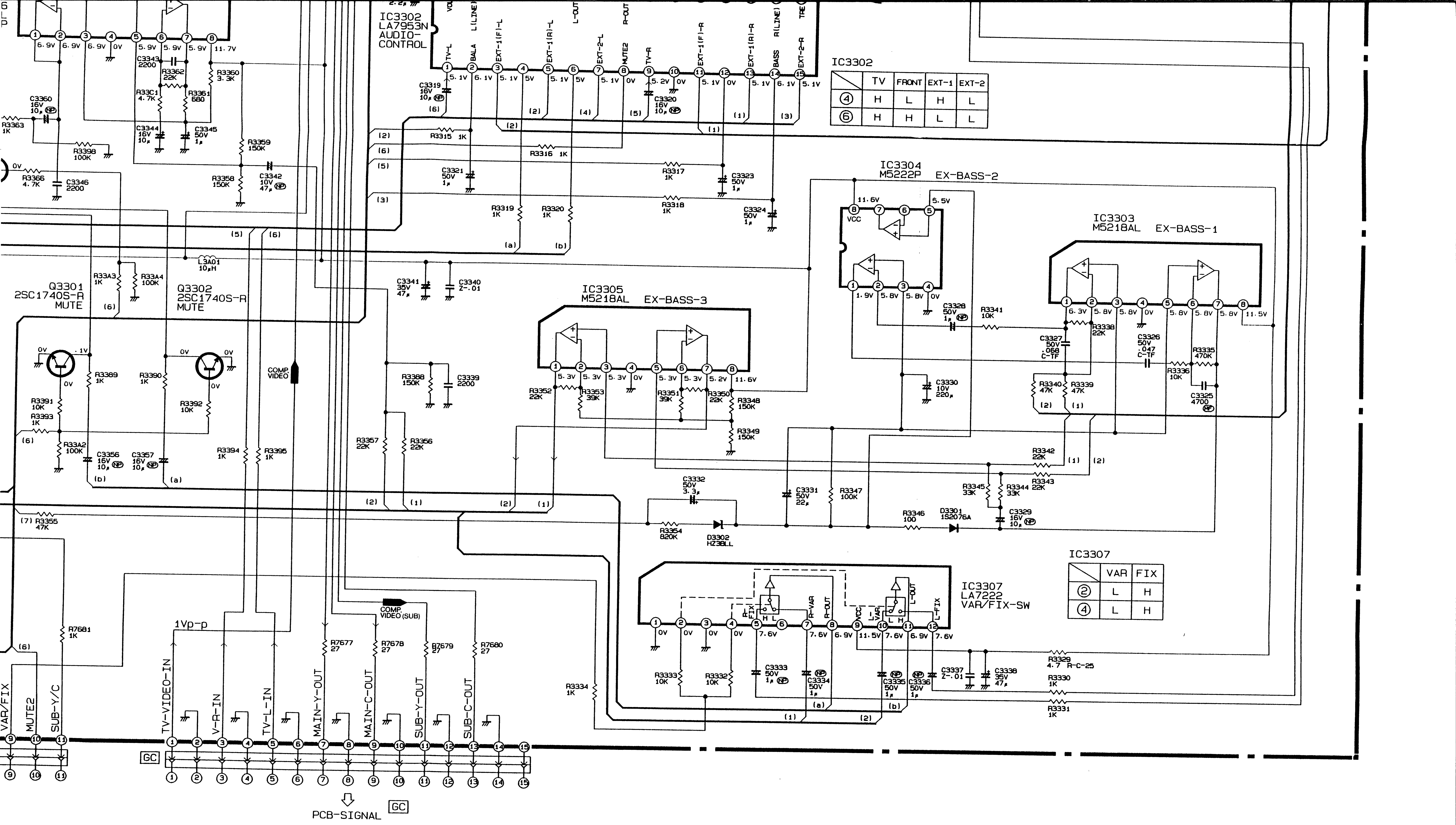
IC3302 LA7953N


CH TONE CONT.
L CH Volume Balance CONT.
R CH Volume Balance CONT.
R CH TONE CONT.
DC CONT.
MUTE
EXP
L CH
R CH
SWITCH DECODER


9
10
11
12
13
14
15
16
COMP. VIDEO(SUB)
Y (MAIN)
CHROMA (MAIN)
(1)
(2)
IC7604
LA7220
SUB-S/
COMP-SW
IC7605
M51320P
VIDEO-SW
2Vp-p
1Vp-p
VCC
R7634 1K
R7635 10K
R7636 10K
R7637 10K
R7643 1K
C7629 16V 10μ
C7630 Z-.01
C7636 Z-.01
C7631 16V 10μ
C7632 Z-.01
C7633 35V 47μ
C7634 16V 10μ
C7635 Z-.01
R7638 100
R7639 10 R-C-25
R7640 100
R7641 100
R7630 820K
R7631 820K
C7626 Z-.01
C7628 16V 10μ
C7627 16V 10μ
R7633 22
C7637 16V 10μ
R7642 100
C7660 16V 10μ
C7661 Z-.01
C7638 35V 47μ
C7639 Z-.01
R7645 10 R-C-25
R7646 100
R7647 10K
C7640 16V 10μ
C7641 Z-.01
R7648 10K
R7649 10K
R7650 100
C7642 Z-.01
L7602 10μH
C7649 Z-.01
C7648 35V 47μ
L7603 10μH
C7656 16V 100μ
C7657 Z-.01
R7670 100
740S-R
ER
(g)
(h)
(f)
(1)
IC3301
M5223L
AUDIO AMP
R3327 8.2K
R3326 1K
R3328 4.7K
C3305 16V 33μ
R3324 4.7K
R3323 8.2K
R3322 1K
C3306 16V 33μ
C3307 35V 47μ
C3308 Z-.01
R3325 4.7 R-C-25
R3305 4.7 R-C-25
C3309 16V 2200P
C3310 Z-.01
L
R
(2)
(1)
(4)
IC3302
LA7953N
AUDIO-
CONTROL
R3308 1K
C3A01 50V 2.2μ
R3307 2.2K
R3309 5.6K
C3318 10V 22μ
C3311 J-.01
C3312 J-0.22
R3310 5.6K
C3313 J-.022
C3314 J-.01
R3312 5.6K
R3311 5.6K
C3317 10V 22μ
R3306 1K
R3313 8.2K
C3315 J-.1
R3314 2.2K
C3316 50V 1μ
C3319 16V 10μ
VOL
L(LINE)
L-OUT
R-OUT
R(LINE)
TRE
TV-L
BALA
EXT-1(F)-L
EXT-1(R)-L
EXT-2-L
MUTE2
TV-R
EXT-1(F)-R
EXT-1(R)-R
BASS
EXT-2-R
C3343 2200
R3362 22K
R3360 3.3K
R3361 680
R3301 4.7K
C3360
6.9V
0V
5.9V
11.7V
5.3V
5V
11.6V
4.2V
2.9V
4V
11.4V
6.1V
5.1V
5.2V
3V
6.1V
3.9V
4.1V
5.5V
4.7V
3.2V
11.1V
3.3V
7.4V
7.3V
6.8V
11.2V
6.7V
6.6V
H
L
M

IC3302

	TV	FRONT	EXT-1	EXT-2
①	H	L	H	L


IC3302
LA7953N
AUDIO-
CONTROL
TV-L
BALA
EXT-1(F)-L
EXT-1(R)-L
EXT-2-L
MUTE2
TV-R
EXT-1(F)-R
EXT-1(R)-R
BASS
EXT-2-R
L(LINE)
L-OUT
R-OUT
R(LINE)
IC3304
M5222P EX-BASS-2
IC3303
M5218AL EX-BASS-1
IC3305
M5218AL EX-BASS-3
Q3301
2SC1740S-R
MUTE
Q3302
2SC1740S-R
MUTE
COMP.
VIDEO
COMP.
VIDEO (SUB)
IC3307
LA7222
VAR/FIX-SW
R-FIX
R-VAR
R-OUT
VCC
L-VAR
L-OUT
L-FIX
D3301
1S2076A
D3302
HZ3BLL
L3A01
10μH
1Vp-p
VAR/FIX
MUTE2
SUB-Y/C
TV-VIDEO-IN
V-R-IN
TV-L-IN
MAIN-Y-OUT
MAIN-C-OUT
SUB-Y-OUT
SUB-C-OUT
GC
PCB-SIGNAL
GC

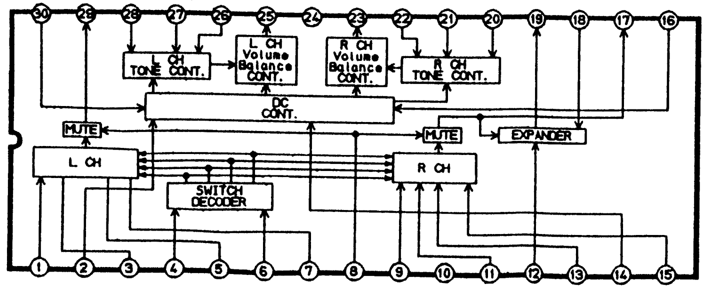
IC3302

	TV	FRONT	EXT-1	EXT-2
④	H	L	H	L
⑥	H	H	L	L

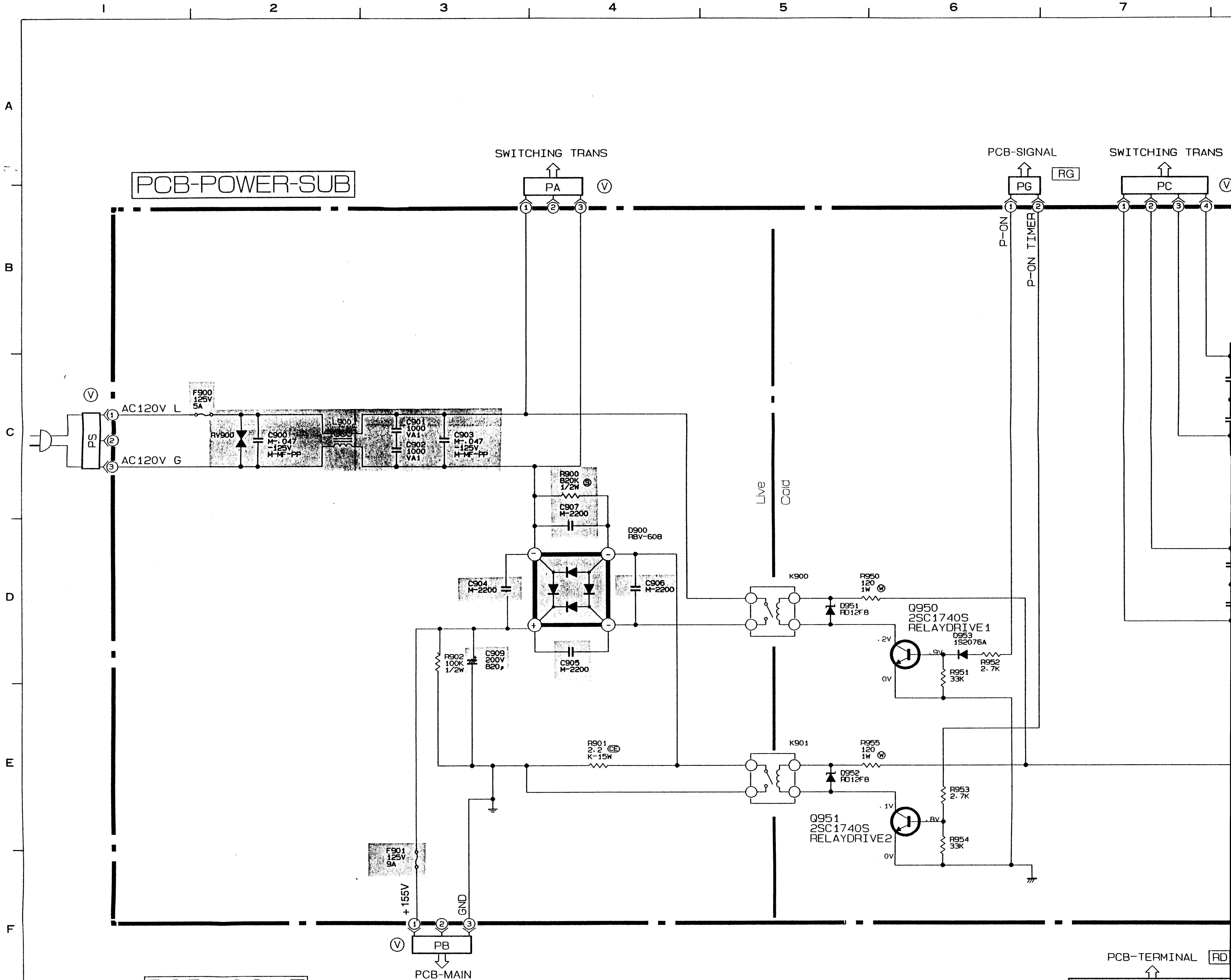
IC3307

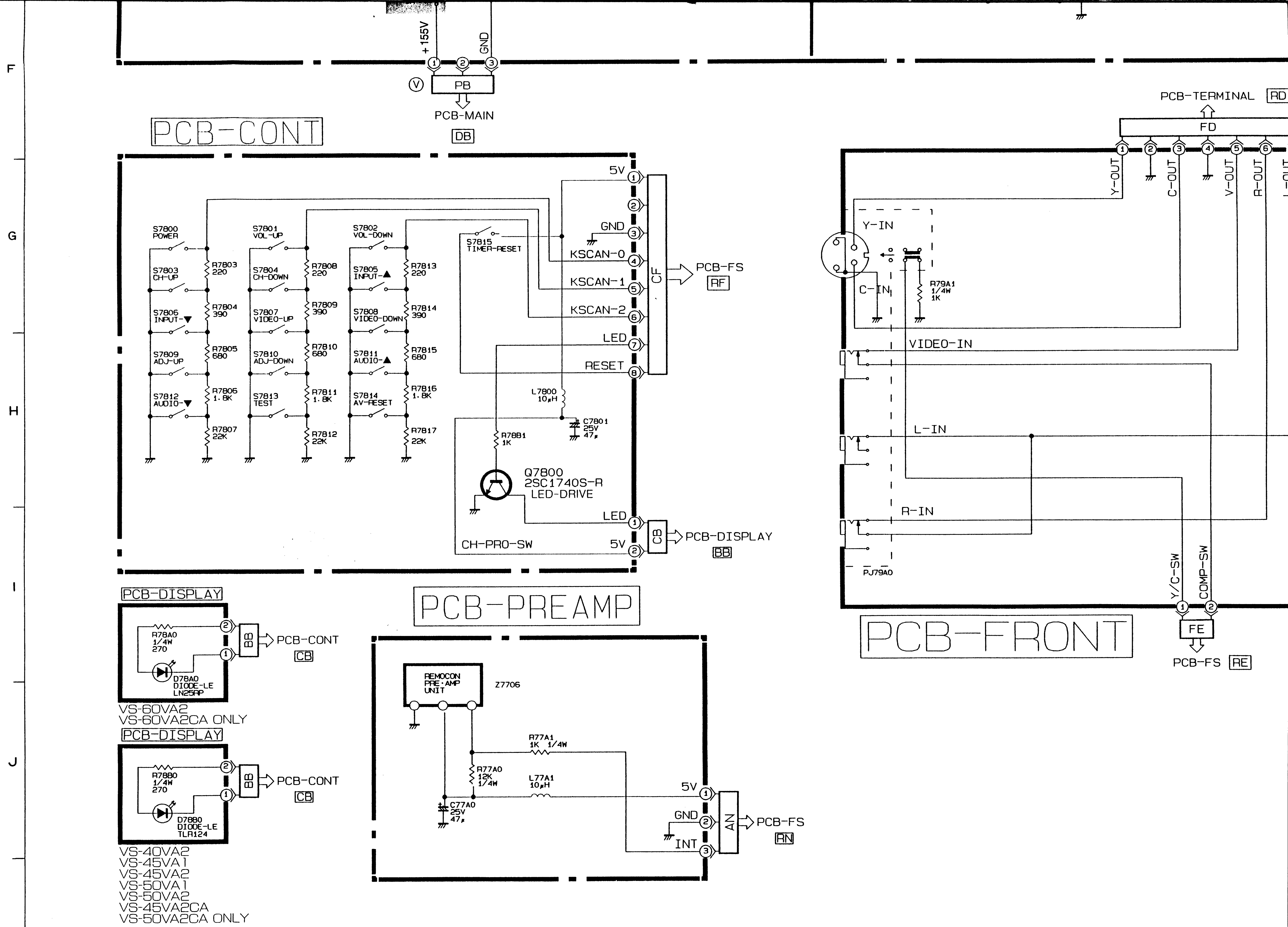
	VAR	FIX
②	L	H
④	L	H

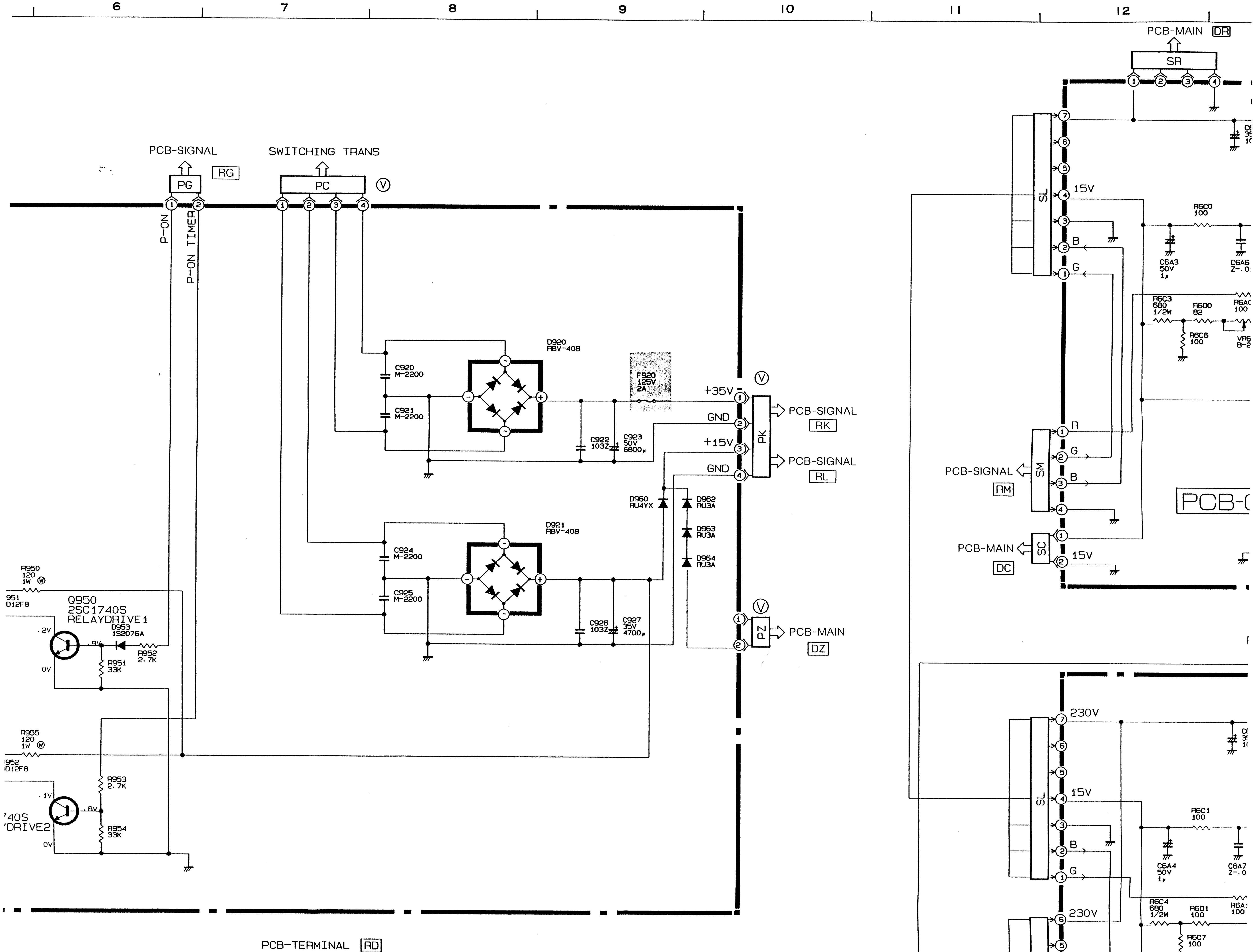
IC3302 LA7953N

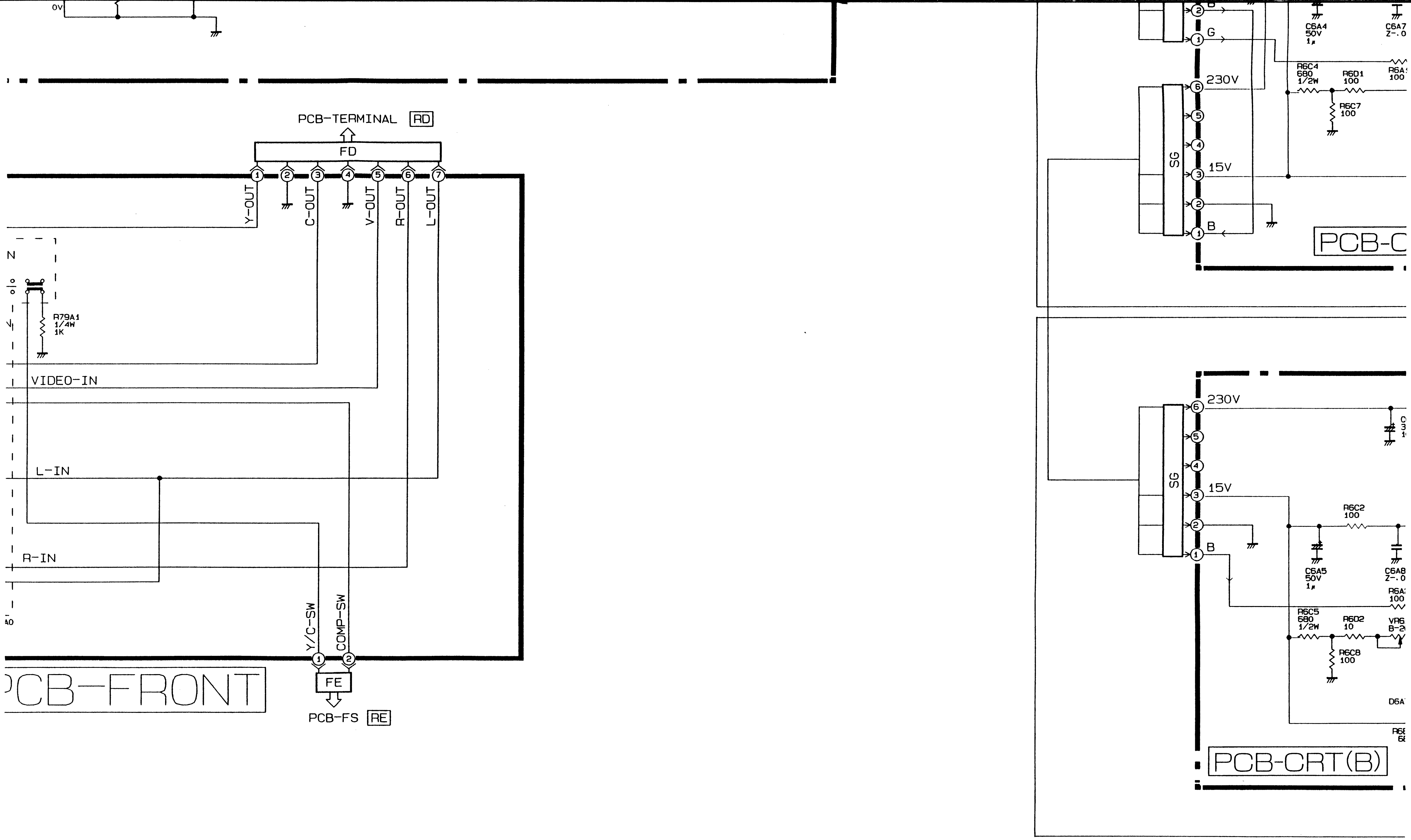

L CH TONE CONT.
L CH Volume Balance CONT.
R CH Volume Balance CONT.
R CH TONE CONT.
DC CONT.
MUTE
MUTE
EXPANDER
L CH
R CH
SWITCH DECODER

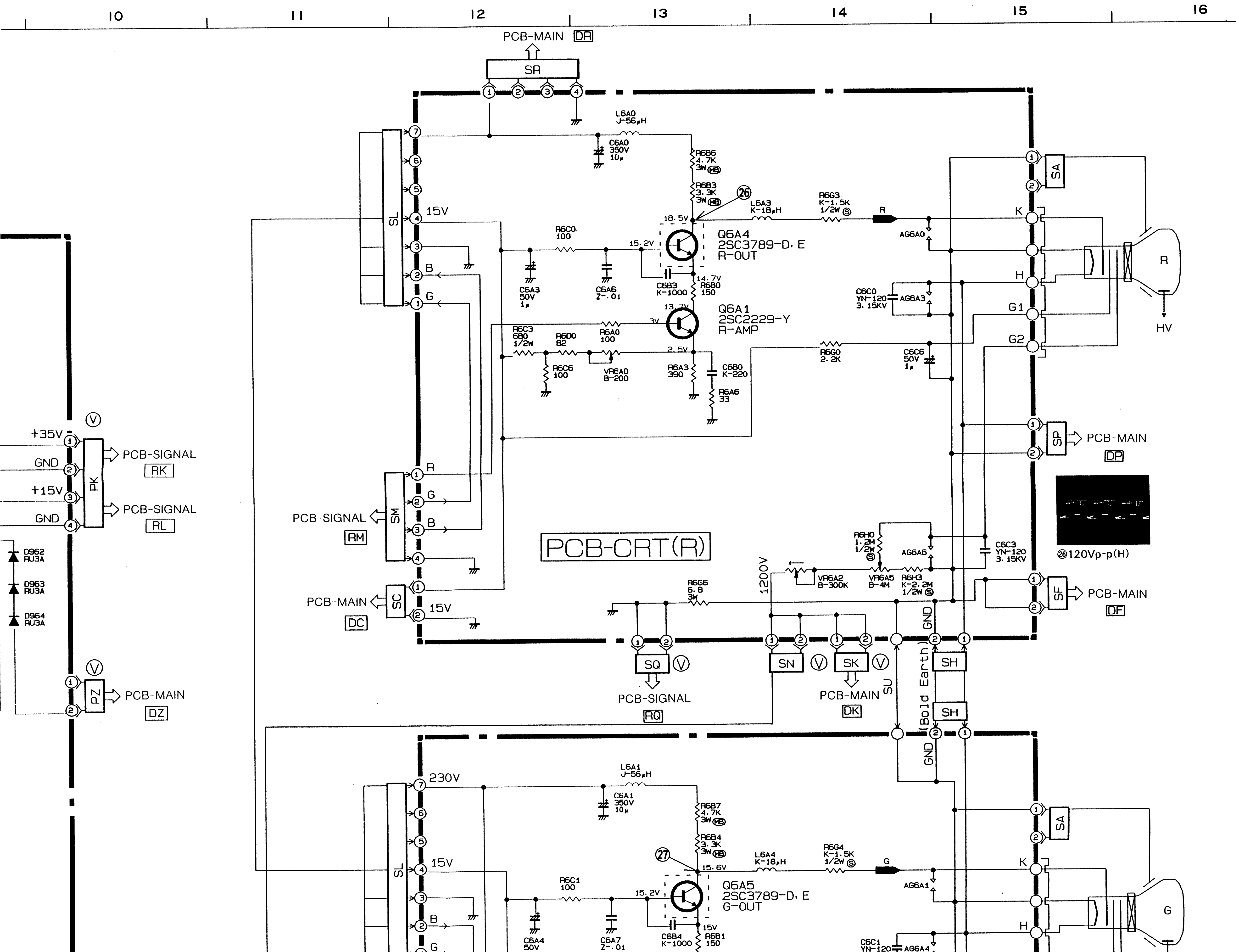
VS-40VA2
VS-45VA1
VS-45VA2
VS-50VA1
VS-50VA2
VS-60VA2
VS-45VA2CA
VS-50VA2CA
VS-60VA2CA(3/6)

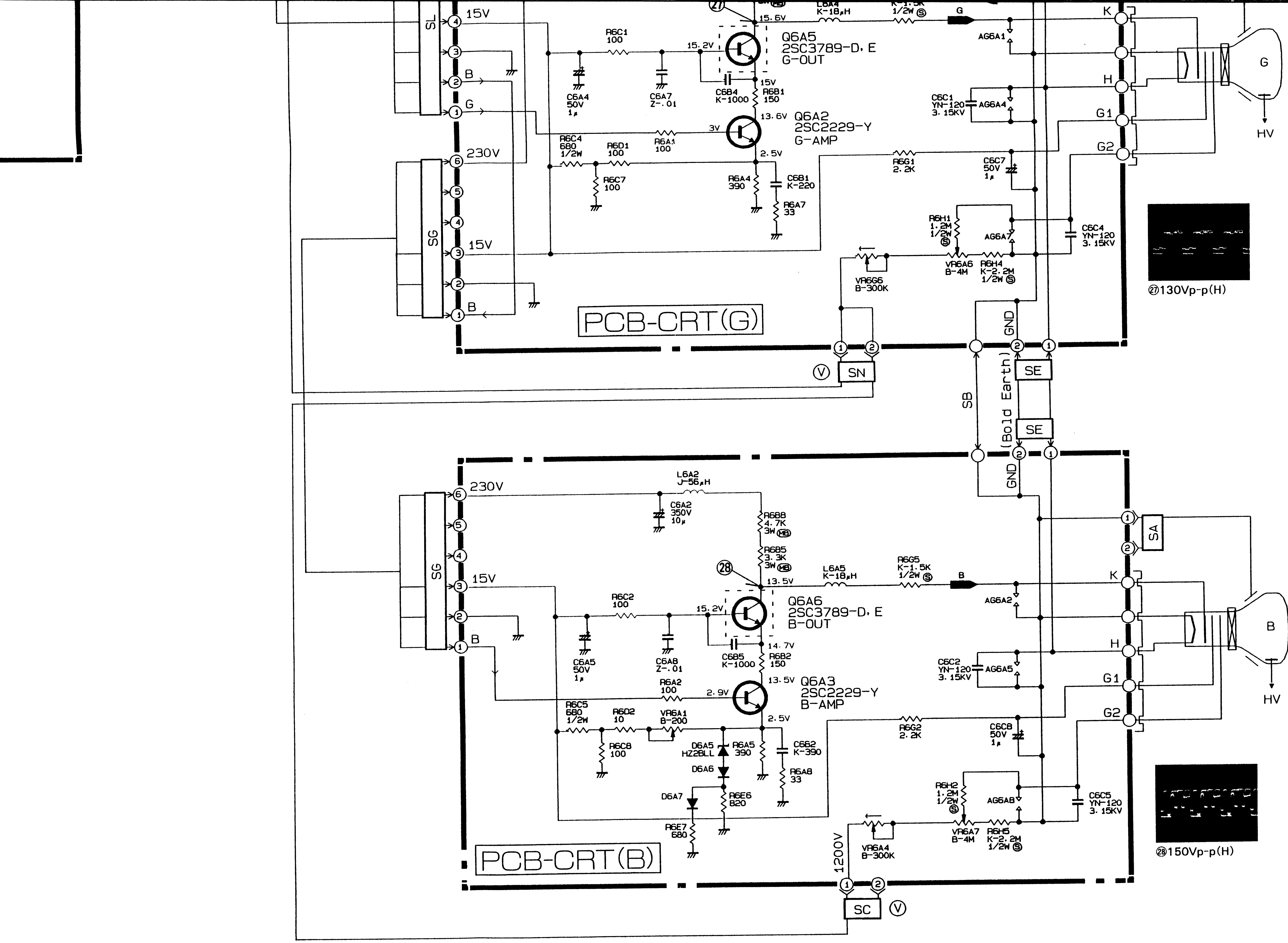

1
2
3
4
5
6
7
A
B
C
D
E
F
PCB-POWER-SUB
SWITCHING TRANS
PA
Ⓥ
①
②
③
PCB-SIGNAL
PG
RG
①
②
P-ON
P-ON TIMER
SWITCHING TRANS
PC
Ⓥ
①
②
③
④
Ⓥ
PS
AC120V L
AC120V G
F900
125V
5A
RV900
C900
M-.047
-125V
M-MF-PP
L900
C901
1000
VA1
C902
1000
VA1
C903
M-.047
-125V
M-MF-PP
R900
820K
1/2W Ⓢ
C907
M-2200
D900
RBV-608
C904
M-2200
C906
M-2200
C905
M-2200
R902
100K
1/2W
C909
200V
820μ
Live
Cold
K900
R950
120
1W Ⓦ
D951
RD12F8
Q950
2SC1740S
RELAYDRIVE1
D953
1S2076A
.2V
.9V
0V
R951
33K
R952
2.7K
K901
R955
120
1W Ⓦ
D952
RD12F8
R901
2.2 Ⓒ
K-15W
R953
2.7K
R954
33K
Q951
2SC1740S
RELAYDRIVE2
.1V
.8V
0V
F901
125V
9A
+155V
GND
①
②
③
Ⓥ
PB
PCB-MAIN
PCB-TERMINAL
RD

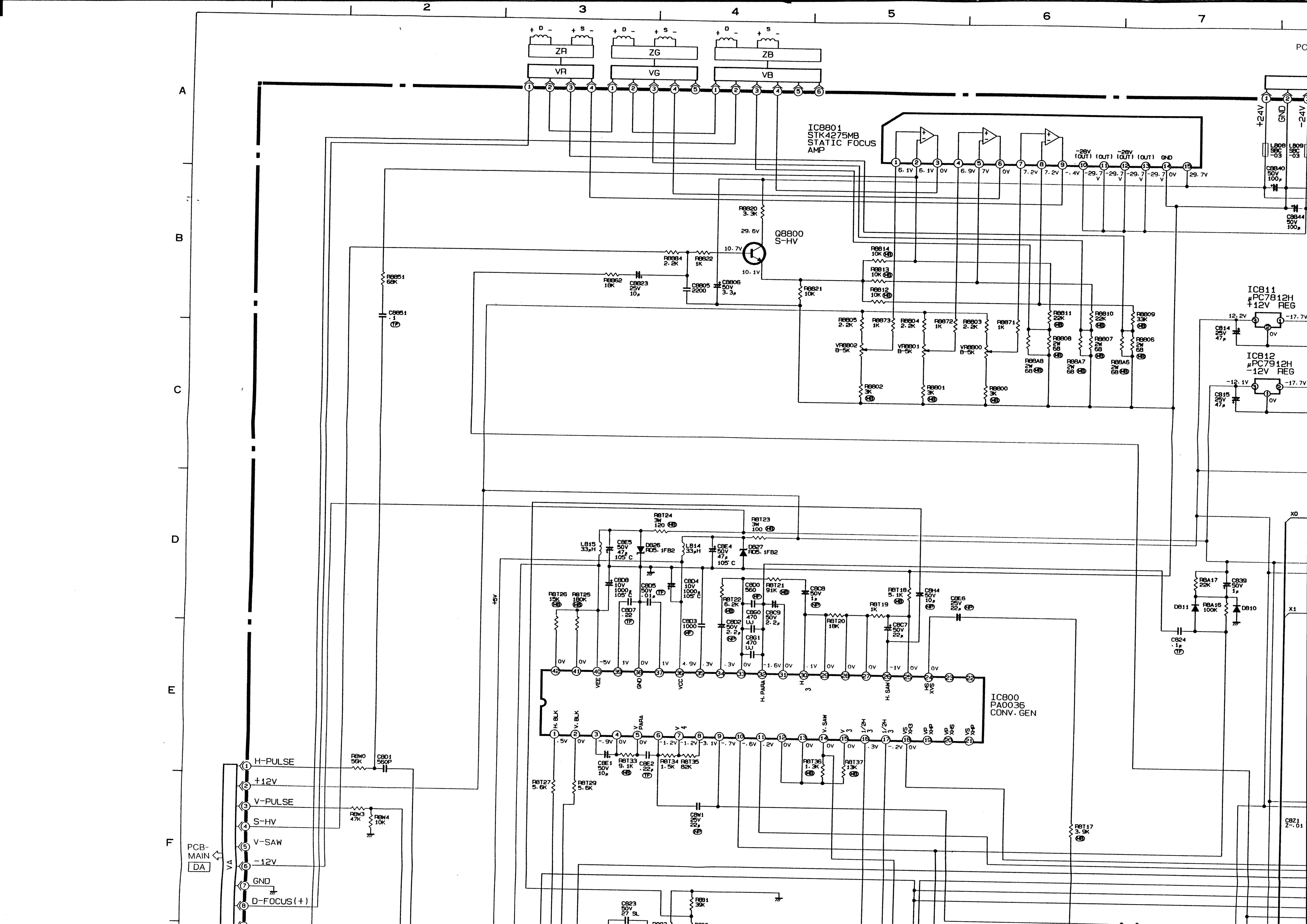

F
G
H
I
J
+155V
GND
V
PB
PCB-MAIN
DB
PCB-CONT
5V
GND
KSCAN-0
KSCAN-1
KSCAN-2
LED
RESET
CF
PCB-FS
RF
S7800 POWER
S7803 CH-UP
S7806 INPUT-▼
S7809 ADJ-UP
S7812 AUDIO-▼
R7803 220
R7804 390
R7805 680
R7806 1.8K
R7807 22K
S7801 VOL-UP
S7804 CH-DOWN
S7807 VIDEO-UP
S7810 ADJ-DOWN
S7813 TEST
R7808 220
R7809 390
R7810 680
R7811 1.8K
R7812 22K
S7802 VOL-DOWN
S7805 INPUT-▲
S7808 VIDEO-DOWN
S7811 AUDIO-▲
S7814 AV-RESET
R7813 220
R7814 390
R7815 680
R7816 1.8K
R7817 22K
S7815 TIMER-RESET
L7800 10μH
C7801 25V 47μ
R7881 1K
Q7800 2SC1740S-R LED-DRIVE
LED
5V
CH-PRO-SW
CB
PCB-DISPLAY
BB
PCB-DISPLAY
R78A0 1/4W 270
D78A0 DIODE-LE LN25RP
BB
PCB-CONT
CB
VS-60VA2
VS-60VA2CA ONLY
PCB-DISPLAY
R7880 1/4W 270
D7880 DIODE-LE TLR124
BB
PCB-CONT
CB
VS-40VA2
VS-45VA1
VS-45VA2
VS-50VA1
VS-50VA2
VS-45VA2CA
VS-50VA2CA ONLY
PCB-PREAMP
REMOCON PRE·AMP UNIT
Z7706
R77A1 1K 1/4W
R77A0 12K 1/4W
L77A1 10μH
C77A0 25V 47μ
5V
GND
INT
AN
PCB-FS
RN
PCB-TERMINAL
RD
FD
Y-OUT
C-OUT
V-OUT
R-OUT
L-OUT
Y-IN
C-IN
R79A1 1/4W 1K
VIDEO-IN
L-IN
R-IN
PJ79A0
Y/C-SW
COMP-SW
FE
PCB-FS
RE
PCB-FRONT

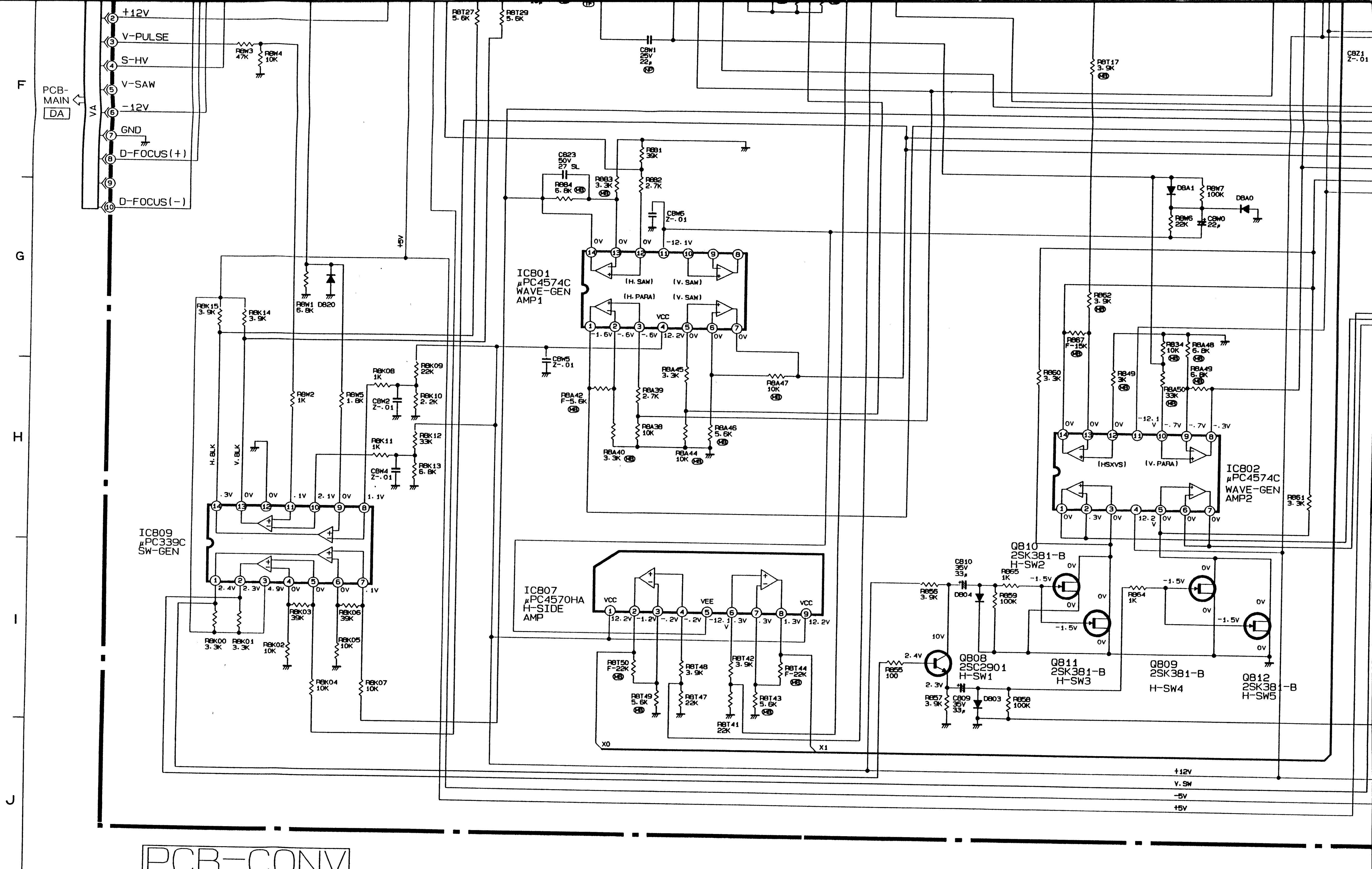

6
7
8
9
10
11
12
PCB-MAIN DR
SR
PCB-SIGNAL
RG
PG
P-ON
P-ON TIMER
SWITCHING TRANS
PC
Ⓥ
D920
RBV-408
C920
M-2200
C921
M-2200
F920
125V
2A
C922
103Z
C923
50V
6800µ
+35V
GND
+15V
GND
PK
PCB-SIGNAL
RK
PCB-SIGNAL
RL
D960
RU4YX
D962
RU3A
D963
RU3A
D964
RU3A
D921
RBV-408
C924
M-2200
C925
M-2200
C926
103Z
C927
35V
4700µ
PZ
PCB-MAIN
DZ
R950
120
1W Ⓦ
951
D12F8
Q950
2SC1740S
RELAYDRIVE1
D953
1S2076A
.2V
.9V
R952
2.7K
R951
33K
0V
R955
120
1W Ⓦ
952
D12F8
R953
2.7K
.1V
.8V
740S
DRIVE2
R954
33K
0V
PCB-TERMINAL RD
SL
15V
B
G
R6C0
100
C6A3
50V
1µ
C6A6
Z-.0
R6C3
680
1/2W
R6D0
82
R6A0
100
R6C6
100
VR6
B-2
R
G
B
SM
PCB-SIGNAL
RM
PCB-MAIN
SC
15V
DC
PCB-
230V
SL
15V
B
G
R6C1
100
C6A4
50V
1µ
C6A7
Z-.0
R6C4
680
1/2W
R6D1
100
R6A
100
R6C7
100
230V


0V
PCB-TERMINAL
RD
FD
Y-OUT
C-OUT
V-OUT
R-OUT
L-OUT
N
R79A1
1/4W
1K
VIDEO-IN
L-IN
R-IN
AO
Y/C-SW
COMP-SW
FE
PCB-FS
RE
PCB-FRONT
G
230V
SG
15V
B
C6A4
50V
1μ
C6A7
Z-.0
R6C4
680
1/2W
R6D1
100
R6A
100
R6C7
100
PCB-C
C
3
1
R6C2
100
C6A5
50V
1μ
C6A8
Z-.0
R6A
100
R6C5
680
1/2W
R6D2
10
VR6
B-2
R6C8
100
D6A
R6E
6
PCB-CRT(B)


10
11
12
13
14
15
16
PCB-MAIN DR
SR
L6A0
J-56μH
C6A0
350V
10μ
R6B6
4.7K
3W MB
R6B3
3.3K
3W MB
26
L6A3
K-18μH
R6G3
K-1.5K
1/2W S
R
AG6A0
SA
K
H
G1
G2
R
HV
SL
15V
B
G
18.5V
15.2V
R6C0
100
Q6A4
2SC3789-D, E
R-OUT
C6A3
50V
1μ
C6A6
Z-.01
C6B3
K-1000
14.7V
R6B0
150
13.7V
Q6A1
2SC2229-Y
R-AMP
3V
R6C3
680
1/2W
R6D0
82
R6A0
100
2.5V
R6C6
100
VR6A0
B-200
R6A3
390
C6B0
K-220
R6A6
33
C6C0
YN-120
3.15KV
AG6A3
R6G0
2.2K
C6C6
50V
1μ
SP
PCB-MAIN
DP
+35V
GND
+15V
GND
PK
V
PCB-SIGNAL
RK
PCB-SIGNAL
RL
R
G
B
SM
PCB-SIGNAL
RM
PCB-CRT(R)
R6H0
1.2M
1/2W
S
AG6A6
C6C3
YN-120
3.15KV
26 120Vp-p(H)
D962
RU3A
D963
RU3A
D964
RU3A
SC
PCB-MAIN
DC
15V
1200V
VR6A2
B-300K
VR6A5
B-4M
R6H3
K-2.2M
1/2W S
R6G6
6.8
3W
SF
PCB-MAIN
DF
GND
SQ
V
PCB-SIGNAL
RQ
SN
V
SK
V
PCB-MAIN
DK
SU
(Bold Earth)
SH
SH
GND
PZ
V
PCB-MAIN
DZ
230V
L6A1
J-56μH
C6A1
350V
10μ
R6B7
4.7K
3W MB
R6B4
3.3K
3W MB
27
15.6V
L6A4
K-18μH
R6G4
K-1.5K
1/2W S
G
AG6A1
SA
K
H
G
SL
15V
B
G
R6C1
100
15.2V
Q6A5
2SC3789-D, E
G-OUT
C6A4
50V
C6A7
Z-.01
C6B4
K-1000
15V
R6B1
150
C6C1
YN-120
AG6A4


SL
15V
B
G
230V
SG
15V
B
R6C1
100
15.2V
Q6A5
2SC3789-D, E
G-OUT
15.6V
L6A4
K-18μH
K-1.5K
1/2W Ⓢ
G
K
AG6A1
C6A4
50V
1μ
C6A7
Z-.01
C6B4
K-1000
15V
R6B1
150
13.6V
Q6A2
2SC2229-Y
G-AMP
3V
R6A1
100
R6C4
680
1/2W
R6D1
100
R6C7
100
2.5V
R6A4
390
C6B1
K-220
R6A7
33
R6G1
2.2K
C6C1
YN-120
3.15KV
AG6A4
H
G1
G2
C6C7
50V
1μ
R6H1
1.2M
1/2W
Ⓢ
AG6A7
C6C4
YN-120
3.15KV
VR6A6
B-4M
R6H4
K-2.2M
1/2W Ⓢ
VR6G6
B-300K
G
HV
㉗
㉗130Vp-p(H)
PCB-CRT(G)
GND
Ⓥ
SN
SE
SB
(Bold Earth)
SE
GND
230V
L6A2
J-56μH
C6A2
350V
10μ
R6B8
4.7K
3W MB
R6B5
3.3K
3W MB
㉘
13.5V
L6A5
K-18μH
R6G5
K-1.5K
1/2W Ⓢ
B
K
AG6A2
R6C2
100
15.2V
Q6A6
2SC3789-D, E
B-OUT
C6A5
50V
1μ
C6A8
Z-.01
C6B5
K-1000
14.7V
R6B2
150
13.5V
Q6A3
2SC2229-Y
B-AMP
R6A2
100
2.9V
R6C5
680
1/2W
R6D2
10
VR6A1
B-200
2.5V
R6C8
100
D6A5
HZ2BLL
D6A6
R6A5
390
C6B2
K-390
R6A8
33
D6A7
R6E6
820
R6E7
680
R6G2
2.2K
C6C2
YN-120
3.15KV
AG6A5
H
G1
G2
C6C8
50V
1μ
R6H2
1.2M
1/2W
Ⓢ
AG6A8
C6C5
YN-120
3.15KV
VR6A7
B-4M
R6H5
K-2.2M
1/2W Ⓢ
VR6A4
B-300K
1200V
SA
B
HV
㉘150Vp-p(H)
PCB-CRT(B)
SC
Ⓥ

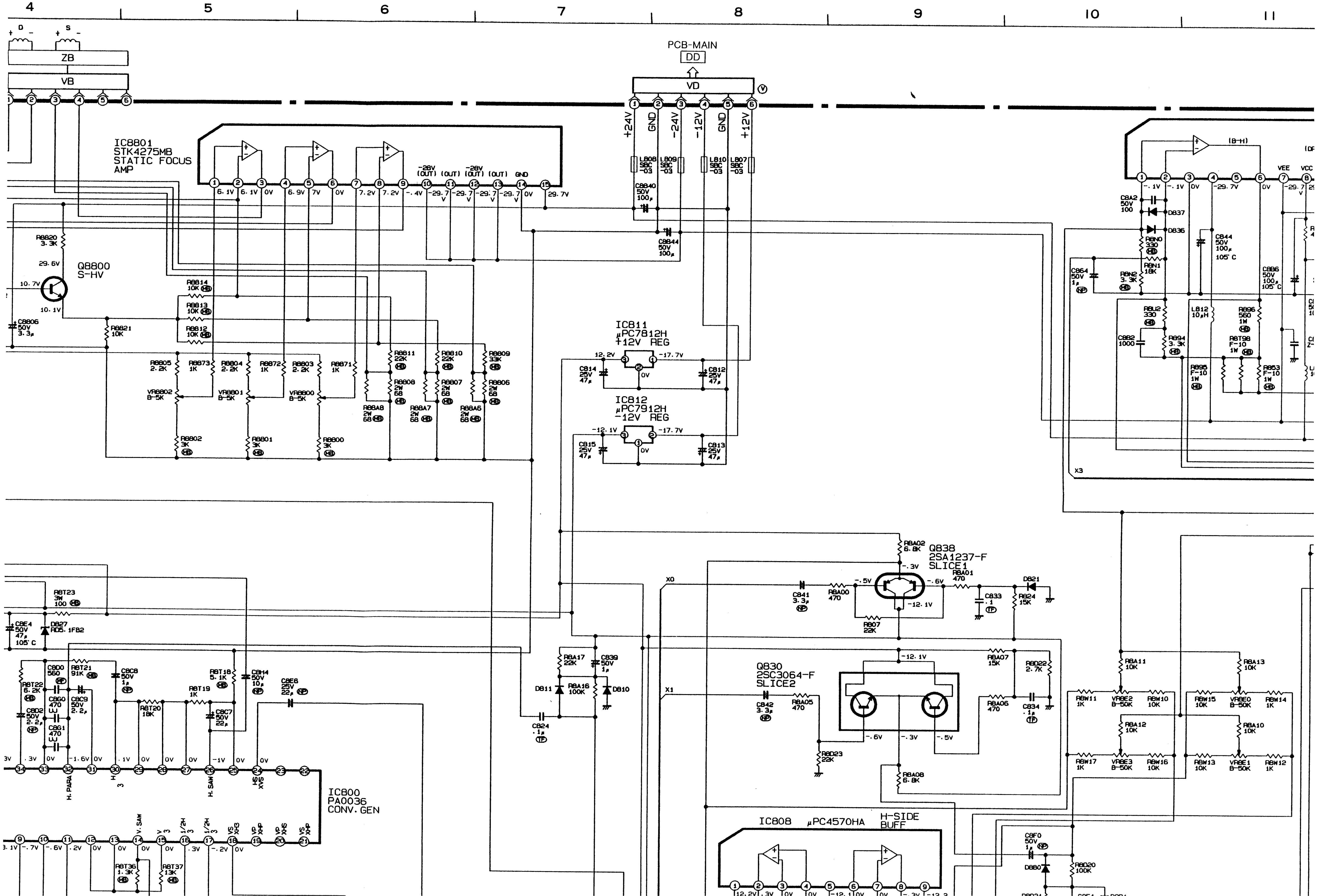

2
3
4
5
6
7
A
B
C
D
E
F
ZR
ZG
ZB
VR
VG
VB
IC8801
STK4275MB
STATIC FOCUS
AMP
Q8800
S-HV
R8820 3.3K
R8884 2.2K
R8822 1K
R8862 18K
C8823 25V 10µ
C8805 2200
C8806 50V 3.3µ
R8821 10K
R8851 68K
C8851 .1
R8814 10K
R8813 10K
R8812 10K
R8805 2.2K
R8873 1K
R8804 2.2K
R8872 1K
R8803 2.2K
R8871 1K
VR8802 B-5K
VR8801 B-5K
VR8800 B-5K
R8802 3K
R8801 3K
R8800 3K
R8811 22K
R8810 22K
R8809 33K
R8808 2W 68
R8807 2W 68
R8806 2W 68
R88A8 2W 68
R88A7 2W 68
R88A6 2W 68
IC811
µPC7812H
+12V REG
IC812
µPC7912H
-12V REG
C814 25V 47µ
C815 25V 47µ
+24V
GND
-24V
L808 SBC -03
L809 SBC -03
C8840 50V 100µ
C8844 50V 100µ
IC800
PA0036
CONV. GEN
R8T24 3W 120
R8T23 3W 100
L815 33µH
C8E5 50V 47µ 105°C
D826 RD5.1FB2
L814 33µH
C8E4 50V 47µ 105°C
D827 RD5.1FB2
R8T26 15K
R8T25 180K
C8D8 10V 1000µ 105°C
C8D7 .22
C8D5 50V .01µ
C8D4 10V 1000µ 105°C
C8D3 1000
C8D0 560
R8T22 6.2K
R8T21 91K
C8D2 50V 2.2µ
C8G0 470 UJ
C8G1 470 UJ
C8C9 50V 2.2µ
C8C8 50V 1µ
R8T20 18K
R8T19 1K
R8T18 5.1K
C8H4 50V 10µ
C8C7 50V 22µ
C8E6 25V 22µ
R8A17 22K
C839 50V 1µ
D811
R8A16 100K
D810
C824 .1µ
X0
X1
C8Z1 Z-.01
VEE
GND
VCC
H. PARA
H 3
H. SAW
VS XVS
H. BLK
V. BLK
V PARA
V 4
V. SAW
V 3
1/2H 3
1/2H 3
VS XH3
VP XHP
VP XHS
VS XHP
C8E1 50V 10µ
R8T33 9.1K
C8E2 .22µ
R8T34 1.5K
R8T35 82K
R8T36 1.3K
R8T37 13K
R8T27 5.6K
R8T29 5.6K
C8W1 25V 22µ
R8T17 3.9K
+5V
H-PULSE
+12V
V-PULSE
S-HV
V-SAW
-12V
GND
D-FOCUS(+)
PCB-MAIN
DA
VA
R8W0 56K
C8D1 560P
R8W3 47K
R8W4 10K
C823 50V 27 SL
R881 39K
PC

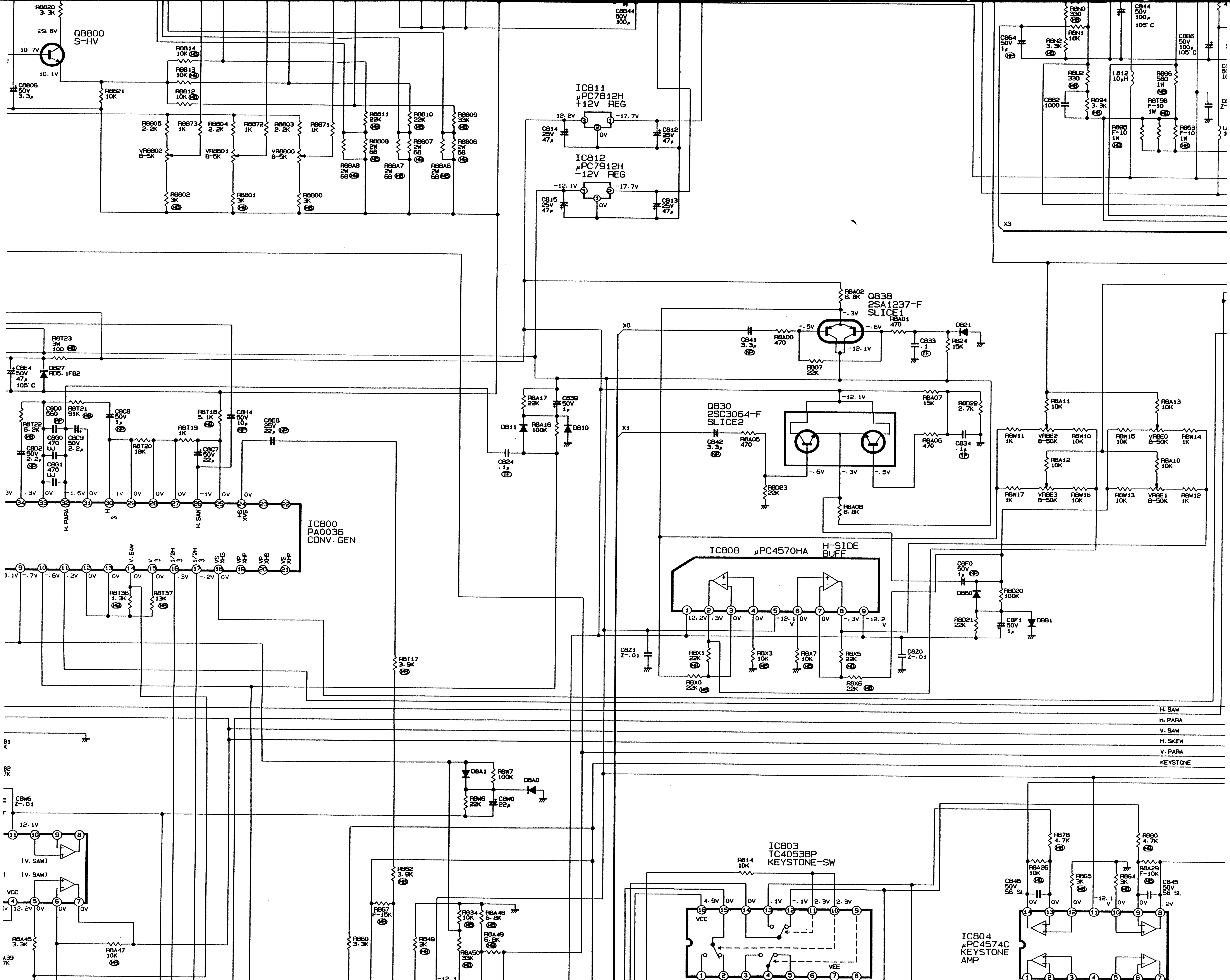

F
G
H
I
J
K
PCB-MAIN
DA
VA
+12V
V-PULSE
S-HV
V-SAW
-12V
GND
D-FOCUS(+)
D-FOCUS(-)
R8W3 47K
R8W4 10K
R8T27 5.6K
R8T29 5.6K
C8W1 25V 22μ NP
R8T17 3.9K
C8Z1 Z-.01
C823 50V 27 SL
R884 6.8K
R883 3.3K
R881 39K
R882 2.7K
C8W6 Z-.01
IC801 μPC4574C WAVE-GEN AMP1
(H.SAW) (V.SAW) (H.PARA) (V.SAW)
VCC
-12.1V
C8W5 Z-.01
R8A45 3.3K
R8A42 F-5.6K
R8A39 2.7K
R8A47 10K
R8A38 10K
R8A46 5.6K
R8A40 3.3K
R8A44 10K
+5V
R8W1 6.8K
D820
R8K15 3.9K
R8K14 3.9K
R8K08 1K
R8K09 22K
R8K10 2.2K
C8W2 Z-.01
R8W2 1K
R8W5 1.8K
R8K11 1K
R8K12 33K
R8K13 6.8K
C8W4 Z-.01
H.BLK
V.BLK
IC809 μPC339C SW-GEN
R8K03 39K
R8K06 39K
R8K00 3.3K
R8K01 3.3K
R8K02 10K
R8K05 10K
R8K04 10K
R8K07 10K
IC807 μPC4570HA H-SIDE AMP
VCC
VEE
R8T50 F-22K
R8T48 3.9K
R8T42 3.9K
R8T44 F-22K
R8T49 5.6K
R8T47 22K
R8T41 22K
R8T43 5.6K
X0
X1
D8A1
R8W7 100K
D8A0
R8W6 22K
C8W0 22μ
R862 3.9K
R867 F-15K
R860 3.3K
R849 3K
R834 10K
R8A48 6.8K
R8A49 6.8K
R8A50 33K
IC802 μPC4574C WAVE-GEN AMP2
(HSxVS) (V.PARA)
R861 3.3K
C810 35V 33μ
Q810 2SK381-B H-SW2
R865 1K
R856 3.9K
D804
R859 100K
R864 1K
R855 100
Q808 2SC2901 H-SW1
R857 3.9K
C809 35V 33μ
D803
R858 100K
Q811 2SK381-B H-SW3
Q809 2SK381-B H-SW4
Q812 2SK381-B H-SW5
+12V
V.SW
-5V
+5V

PCB-CONV

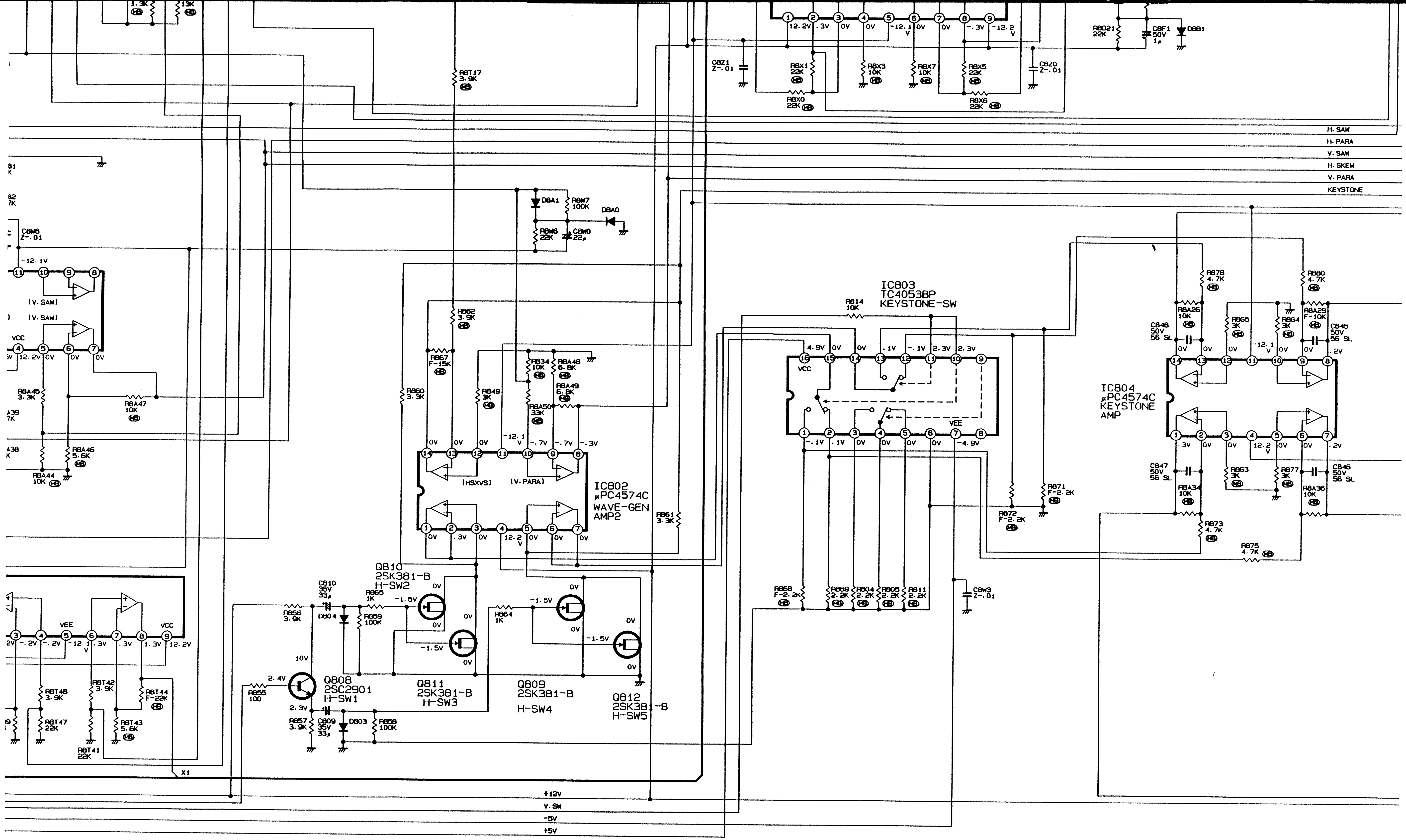
If not specified TRANSISTORS are 2SC2603-E.F/2SC1740S-R.S

If not specified DIODES are 1S2076A/1S2471


4
5
6
7
8
9
10
11
D
S
ZB
VB
PCB-MAIN
DD
VD
+24V
GND
-24V
-12V
GND
+12V
IC8801
STK4275MB
STATIC FOCUS
AMP
-28V (OUT)
(OUT)
-28V (OUT)
(OUT)
GND
Q8800
S-HV
R8820 3.3K
R8821 10K
C8806 50V 3.3μ
R8814 10K
R8813 10K
R8812 10K
R8805 2.2K
R8873 1K
R8804 2.2K
R8872 1K
R8803 2.2K
R8871 1K
VR8802 B-5K
VR8801 B-5K
VR8800 B-5K
R8802 3K
R8801 3K
R8800 3K
R8811 22K
R8810 22K
R8809 33K
R8808 2W 68
R8807 2W 68
R8806 2W 68
R88A8 2W 68
R88A7 2W 68
R88A6 2W 68
L808 SBC -03
L809 SBC -03
L810 SBC -03
L807 SBC -03
C8840 50V 100μ
C8844 50V 100μ
IC811
μPC7812H
+12V REG
IC812
μPC7912H
-12V REG
C814 25V 47μ
C812 25V 47μ
C815 25V 47μ
C813 25V 47μ
(B-H)
VEE
VCC
C8A2 50V 100
D837
D836
R8N0 330
R8N1 18K
R8N2 3.3K
C864 50V 1μ
C844 50V 100μ 105°C
C886 50V 100μ 105°C
R8U2 330
C882 1000
R894 3.3K
L812 10μH
R896 560 1W
R8T98 F-10 1W
R895 F-10 1W
R853 F-10 1W
X3
X0
X1
R8A02 6.8K
Q838
2SA1237-F
SLICE1
R8A01 470
D821
C841 3.3μ
R8A00 470
C833 .1
R824 15K
R807 22K
Q830
2SC3064-F
SLICE2
C842 3.3μ
R8A05 470
R8A07 15K
R8D22 2.7K
R8A06 470
C834 .1μ
R8D23 22K
R8A08 6.8K
R8A17 22K
C839 50V 1μ
D811
R8A16 100K
D810
C824 .1μ
R8A11 10K
R8A13 10K
R8W11 1K
VR8E2 B-50K
R8W10 10K
R8W15 10K
VR8E0 B-50K
R8W14 1K
R8A12 10K
R8A10 10K
R8W17 1K
VR8E3 B-50K
R8W16 10K
R8W13 10K
VR8E1 B-50K
R8W12 1K
IC808
μPC4570HA
H-SIDE BUFF
C8F0 50V 1μ
D880
R8D20 100K
R8T23 3W 100
C8E4 50V 47μ 105°C
D827 RD5.1FB2
C8D0 560
R8T21 91K
C8C8 50V 1μ
R8T18 5.1K
C8H4 50V 10μ
C8E6 25V 22μ
R8T22 6.2K
C8G0 470 UJ
C8C9 50V 2.2μ
R8T19 1K
R8T20 18K
C8C7 50V 22μ
C8D2 50V 2.2μ
C8G1 470 UJ
IC800
PA0036
CONV. GEN
H.PARA
H 3
H.SAW
HS XVS
V.SAW
V 3
1/2H 3
1/2H 3
VS XH3
VP XHP
VP XHS
VS XHP
R8T36 1.3K
R8T37 13K



Q8800
S-HV
R8820 3.3K
29.6V
10.7V
10.1V
C8806 50V 3.3μ
R8821 10K
R8814 10K
R8813 10K
R8812 10K
R8805 2.2K
R8873 1K
R8804 2.2K
R8872 1K
R8803 2.2K
R8871 1K
VR8802 B-5K
VR8801 B-5K
VR8800 B-5K
R8802 3K
R8801 3K
R8800 3K
R8811 22K
R8810 22K
R8809 33K
R8808 2W 68
R8807 2W 68
R8806 2W 68
R88A8 2W 68
R88A7 2W 68
R88A6 2W 68
C8844 50V 100μ
IC811
μPC7812H
+12V REG
12.2V
-17.7V
0V
C814 25V 47μ
C812 25V 47μ
IC812
μPC7912H
-12V REG
-12.1V
-17.7V
C815 25V 47μ
C813 25V 47μ
C864 50V 1μ
R8N0 330
R8N1 18K
R8N2 3.3K
C844 50V 100μ 105°C
C886 50V 100μ 105°C
R8U2 330
L812 10μH
R896 560 1W
C882 1000
R894 3.3K
R8T98 F-10 1W
R895 F-10 1W
R853 F-10 1W
X3
R8A02 6.8K
Q838
2SA1237-F
SLICE1
-.3V
X0
C841 3.3μ
R8A00 470
-.5V
-.6V
-12.1V
R8A01 470
D821
C833 .1
R824 15K
R807 22K
-12.1V
R8A07 15K
R8D22 2.7K
Q830
2SC3064-F
SLICE2
X1
C842 3.3μ
R8A05 470
R8A06 470
C834 .1μ
-.6V
-.3V
-.5V
R8D23 22K
R8A08 6.8K
R8A17 22K
C839 50V 1μ
D811
R8A16 100K
D810
C824 .1μ
R8T23 3W 100
C8E4 50V 47μ 105°C
D827 RD5.1FB2
C8D0 560
R8T21 91K
C8C8 50V 1μ
R8T22 6.2K
C8G0 470 UJ
C8C9 50V 2.2μ
C8D2 50V 2.2μ
C8G1 470 UJ
R8T20 18K
R8T19 1K
R8T18 5.1K
C8H4 50V 10μ
C8C7 50V 22μ
C8E6 25V 22μ
IC800
PA0036
CONV.GEN
H.PARA
H 3
H.SAW
HS XVS
V.SAW
V 3
1/2H 3
1/2H 3
VS XH3
VP XHP
VP XVS
VS XHP
R8T36 1.3K
R8T37 13K
R8T17 3.9K
IC808 μPC4570HA
H-SIDE BUFF
12.2V
-12.1V
-12.2V
C8Z1 Z-.01
C8Z0 Z-.01
R8X1 22K
R8X3 10K
R8X7 10K
R8X5 22K
R8X0 22K
R8X6 22K
C8F0 50V 1μ
D880
R8D20 100K
R8D21 22K
C8F1 50V 1μ
D881
R8A11 10K
R8A13 10K
R8W11 1K
VR8E2 B-50K
R8W10 10K
R8W15 10K
VR8E0 B-50K
R8W14 1K
R8A12 10K
R8A10 10K
R8W17 1K
VR8E3 B-50K
R8W16 10K
R8W13 10K
VR8E1 B-50K
R8W12 1K
H.SAW
H.PARA
V.SAW
H.SKEW
V.PARA
KEYSTONE
D8A1
R8W7 100K
D8A0
R8W6 22K
C8W0 22μ
C8W6 Z-.01
-12.1V
(V.SAW)
(V.SAW)
VCC
12.2V
R8A45 3.3K
R8A47 10K
R862 3.9K
R867 F-15K
R860 3.3K
R849 3K
R834 10K
R8A48 6.8K
R8A49 6.8K
R8A50 33K
IC803
TC4053BP
KEYSTONE-SW
R814 10K
4.9V
2.3V
VCC
VEE
IC804
μPC4574C
KEYSTONE AMP
R878 4.7K
R880 4.7K
R8A26 10K
R8G5 3K
R864 3K
R8A29 F-10K
C848 50V 56 SL
C845 50V 56 SL
-12.1V
.2V


IC802
μPC4574C
WAVE-GEN
AMP2
IC803
TC4053BP
KEYSTONE-SW
IC804
μPC4574C
KEYSTONE
AMP
Q808
2SC2901
H-SW1
Q810
2SK381-B
H-SW2
Q811
2SK381-B
H-SW3
Q809
2SK381-B
H-SW4
Q812
2SK381-B
H-SW5
D8A1
D8A0
D803
D804
D8B1
H. SAW
H. PARA
V. SAW
H. SKEW
V. PARA
KEYSTONE
+12V
V. SW
-5V
+5V
X1
(V. SAW)
(HSXVS)
(V. PARA)
VCC
VEE
R8T17 3.9K
R862 3.9K
R867 F-15K
R849 3K
R850 3.3K
R834 10K
R8A48 6.8K
R8A49 6.8K
R8A50 33K
R8W7 100K
R8W6 22K
C8W0 22μ
R861 3.3K
R856 3.9K
R855 100
R857 3.9K
R858 100K
R859 100K
R865 1K
R864 1K
C810 35V 33μ
C809 35V 33μ
R814 10K
R868 F-2.2K
R869 2.2K
R804 2.2K
R805 2.2K
R811 2.2K
C8W3 Z-.01
R872 F-2.2K
R871 F-2.2K
R878 4.7K
R880 4.7K
R8A26 10K
R8G5 3K
R8G4 3K
R8A29 F-10K
C848 50V 56 SL
C845 50V 56 SL
C847 50V 56 SL
C846 50V 56 SL
R8G3 3K
R877 3K
R8A34 10K
R8A36 10K
R873 4.7K
R875 4.7K
R8X1 22K
R8X3 10K
R8X7 10K
R8X5 22K
R8X0 22K
R8X6 22K
C8Z1 Z-.01
C8Z0 Z-.01
R8021 22K
C8F1 50V 1μ
C8W6 Z-.01
R8A45 3.3K
R8A47 10K
R8A46 5.6K
R8A44 10K
R8T48 3.9K
R8T47 22K
R8T42 3.9K
R8T41 22K
R8T43 5.6K
R8T44 F-22K

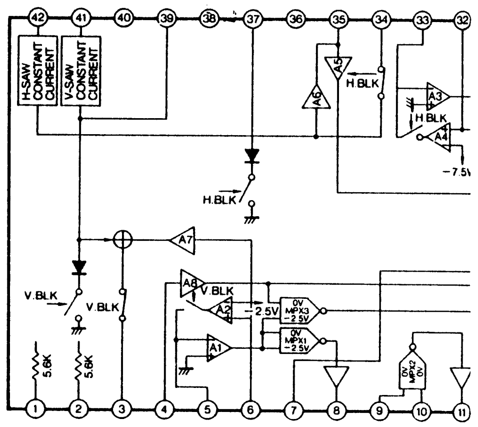
If not specified TRANSISTORS are 2SC2603-E.F/2SC1740S-R.S

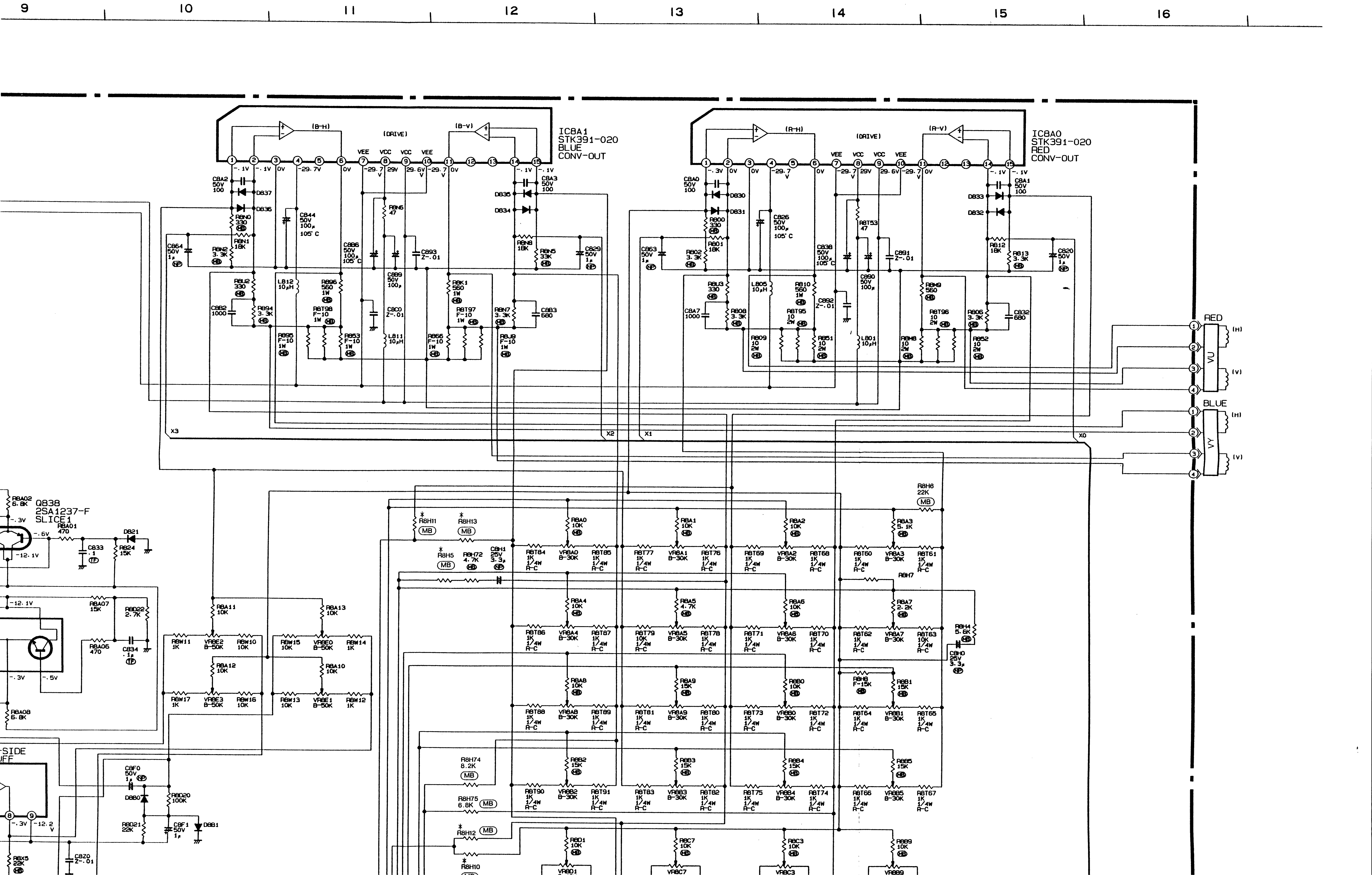
If not specified DIODES are 1S2076A/1S2471

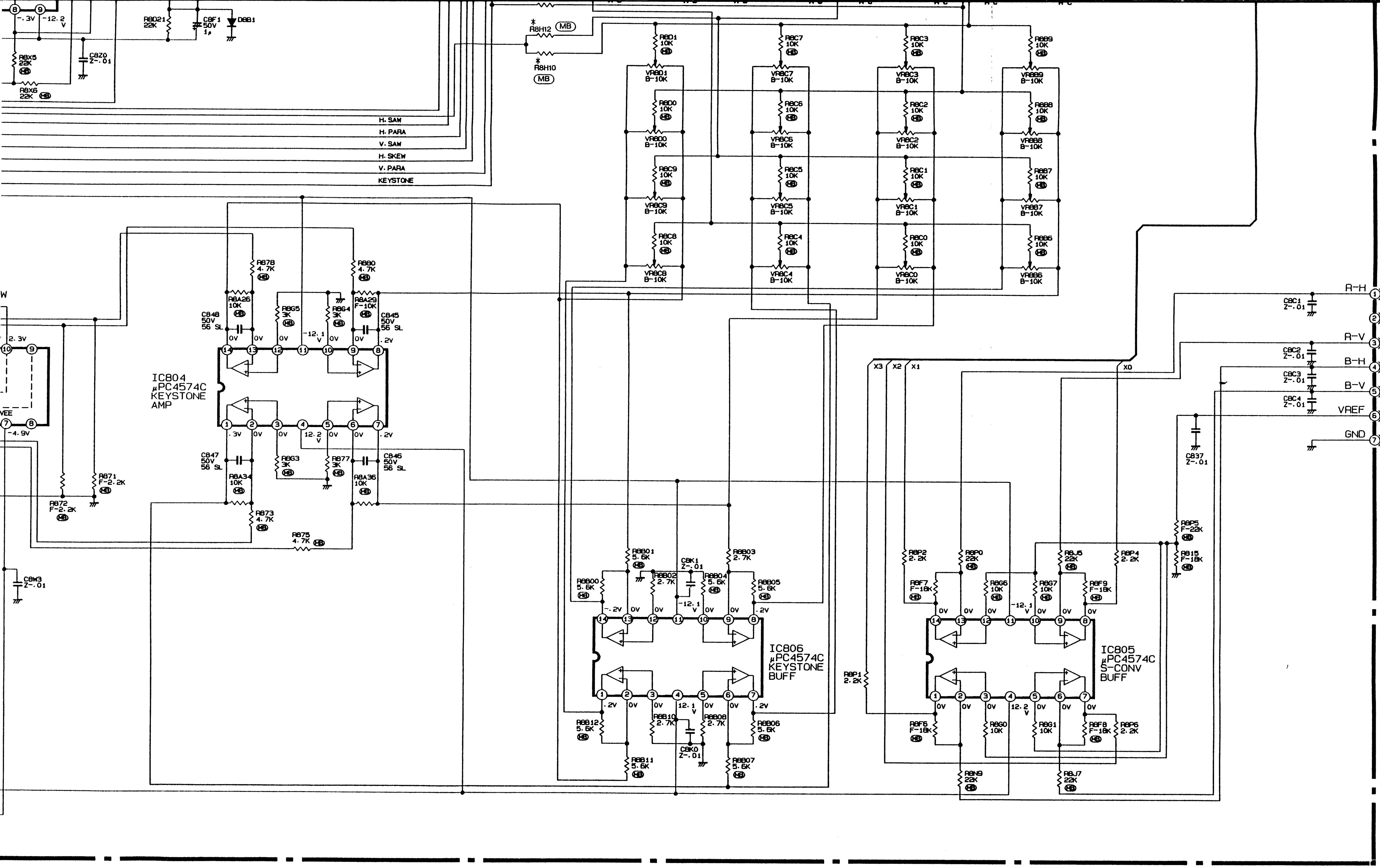
***DIFFERENCE TABLE**

	R8H10	R8H11	R8H12	R8H13	R8H5
VS-40VA2	×	×	×	×	5.6K
VS-45VA1	27K	18K	27K	6.8K	10K
VS-45VA2	27K	18K	27K	6.8K	10K
VS-50VA1	39K	24K	39K	8.2K	10K
VS-50VA2	39K	24K	39K	8.2K	10K
VS-60VA2	×	27K	39K	8.2K	10K
VS-45VA2CA	27K	18K	27K	6.8K	10K
VS-50VA2CA	39K	24K	39K	8.2K	10K
VS-60VA2CA	×	27K	39K	8.2K	10K

IC800 PA0036

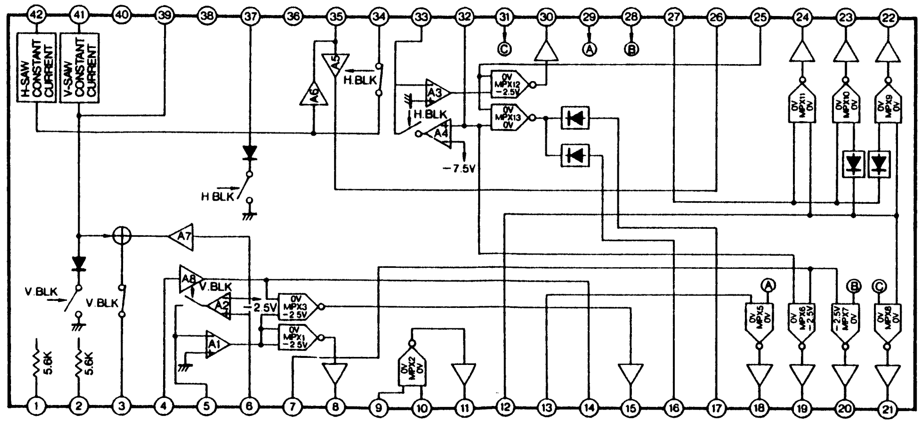

H-SAW CONSTANT CURRENT
V-SAW CONSTANT CURRENT
H BLK
V BLK
A1
A2
A3
A4
A6
A7
-2.5V
-7.5V


9
10
11
12
13
14
15
16
IC8A1
STK391-020
BLUE
CONV-OUT
IC8A0
STK391-020
RED
CONV-OUT
(B-H)
(B-V)
(R-H)
(R-V)
(DRIVE)
VEE
VCC
C8A2 50V 100
C8A3 50V 100
C8A0 50V 100
C8A1 50V 100
D837
D836
D835
D834
D830
D831
D833
D832
R8N0 330
R8N1 18K
R8N2 3.3K
R8N5 33K
R8N6 47
R8N8 18K
R8N7 3.3K
C844 50V 100μ 105°C
C826 50V 100μ 105°C
C886 50V 100μ 105°C
C838 50V 100μ 105°C
C864 50V 1μ NP
C829 50V 1μ NP
C863 50V 1μ NP
C820 50V 1μ NP
C893 Z-.01
C891 Z-.01
C889 50V 100μ
C890 50V 100μ
C8C0 Z-.01
C892 Z-.01
R8U2 330
R8U3 330
C882 1000
C8A7 1000
R894 3.3K
R808 3.3K
L812 10μH
L805 10μH
R896 560 1W
R810 560 1W
R8T98 F-10 1W
R8T95 10 2W
R8K1 560 1W
R8M9 560
R8T97 F-10 1W
R8T96 10 2W
C883 680
C832 680
R806 3.3K
R8T53 47
R812 18K
R813 3.3K
R802 3.3K
R800 330
R801 18K
R895 F-10 1W
R853 F-10 1W
L811 10μH
L801 10μH
R866 F-10 1W
R8J9 F-10 1W
R809 10 2W
R851 10 2W
R848 10 2W
R852 10 2W
RED
BLUE
VU
VY
(H)
(V)
X3
X2
X1
X0
R8A02 6.8K
Q838
2SA1237-F
SLICE1
R8A01 470
C833 .1 TF
D821
R824 15K
R8A07 15K
R8D22 2.7K
R8A06 470
C834 .1μ TF
R8A08 6.8K
-SIDE
UFF
C8F0 50V 1μ NP
D8B0
R8D20 100K
R8D21 22K
C8F1 50V 1μ
D8B1
R8X5 22K
C8Z0 Z-.01
R8A11 10K
R8A13 10K
R8W11 1K
VR8E2 B-50K
R8W10 10K
R8W15 10K
VR8E0 B-50K
R8W14 1K
R8A12 10K
R8A10 10K
R8W17 1K
VR8E3 B-50K
R8W16 10K
R8W13 10K
VR8E1 B-50K
R8W12 1K
R8H11 MB
R8H13 MB
R8H5 MB
R8H72 4.7K
C8H1 25V 3.3μ NP
R8H6 22K MB
R8H7
R8H4 5.6K
C8H0 25V 3.3μ NP
R8H74 8.2K MB
R8H75 6.8K MB
R8H12 MB
R8H10
R8A0 10K
R8A1 10K
R8A2 10K
R8A3 5.1K
VR8A0 B-30K
VR8A1 B-30K
VR8A2 B-30K
VR8A3 B-30K
R8T84 1K 1/4W R-C
R8T85 1K 1/4W R-C
R8T77 1K 1/4W R-C
R8T76 1K 1/4W R-C
R8T69 1K 1/4W R-C
R8T68 1K 1/4W R-C
R8T60 1K 1/4W R-C
R8T61 1K 1/4W R-C
R8A4 10K
R8A5 4.7K
R8A6 10K
R8A7 2.2K
VR8A4 B-30K
VR8A5 B-30K
VR8A6 B-30K
VR8A7 B-30K
R8T86 1K 1/4W R-C
R8T87 1K 1/4W R-C
R8T79 10K 1/4W R-C
R8T78 1K 1/4W R-C
R8T71 1K 1/4W R-C
R8T70 1K 1/4W R-C
R8T62 1K 1/4W R-C
R8T63 10K 1/4W R-C
R8A8 10K
R8A9 15K
R8B0 10K
R8B1 15K
R8H8 F-15K
VR8A8 B-30K
VR8A9 B-30K
VR8B0 B-30K
VR8B1 B-30K
R8T88 1K 1/4W R-C
R8T89 1K 1/4W R-C
R8T81 1K 1/4W R-C
R8T80 1K 1/4W R-C
R8T73 1K 1/4W R-C
R8T72 1K 1/4W R-C
R8T64 1K 1/4W R-C
R8T65 1K 1/4W R-C
R8B2 15K
R8B3 15K
R8B4 15K
R8B5 15K
VR8B2 B-30K
VR8B3 B-30K
VR8B4 B-30K
VR8B5 B-30K
R8T90 1K 1/4W R-C
R8T91 1K 1/4W R-C
R8T83 1K 1/4W R-C
R8T82 1K 1/4W R-C
R8T75 1K 1/4W R-C
R8T74 1K 1/4W R-C
R8T66 1K 1/4W R-C
R8T67 1K 1/4W R-C
R8D1 10K
R8C7 10K
R8C3 10K
R8B9 10K
VR8D1
VR8C7
VR8C3
VR8B9

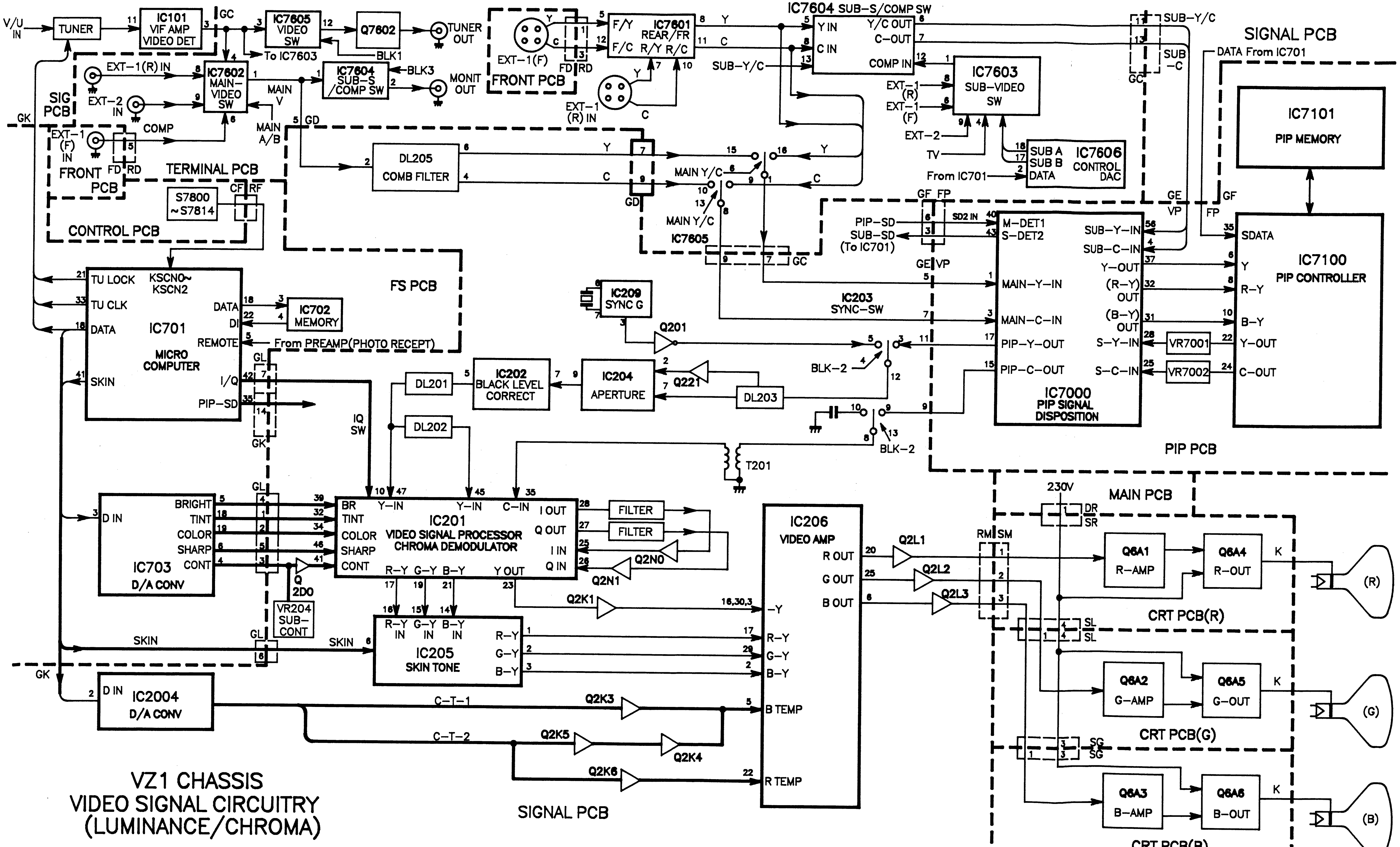

H. SAW
H. PARA
V. SAW
H. SKEW
V. PARA
KEYSTONE
R8H12 (MB)
R8H10 (MB)
R8D1 10K
VR8D1 B-10K
R8C7 10K
VR8C7 B-10K
R8C3 10K
VR8C3 B-10K
R8B9 10K
VR8B9 B-10K
IC804
μPC4574C
KEYSTONE
AMP
IC806
μPC4574C
KEYSTONE
BUFF
IC805
μPC4574C
S-CONV
BUFF
R-H
R-V
B-H
B-V
VREF
GND
VC
PCB-SIGNAL
RC
X3
X2
X1
X0
VEE

R8H12	R8H13	R8H5
×	×	5.6K
27K	6.8K	10K
27K	6.8K	10K
39K	8.2K	10K
39K	8.2K	10K
39K	8.2K	10K
27K	6.8K	10K
39K	8.2K	10K
39K	8.2K	10K

IC800 PA0036

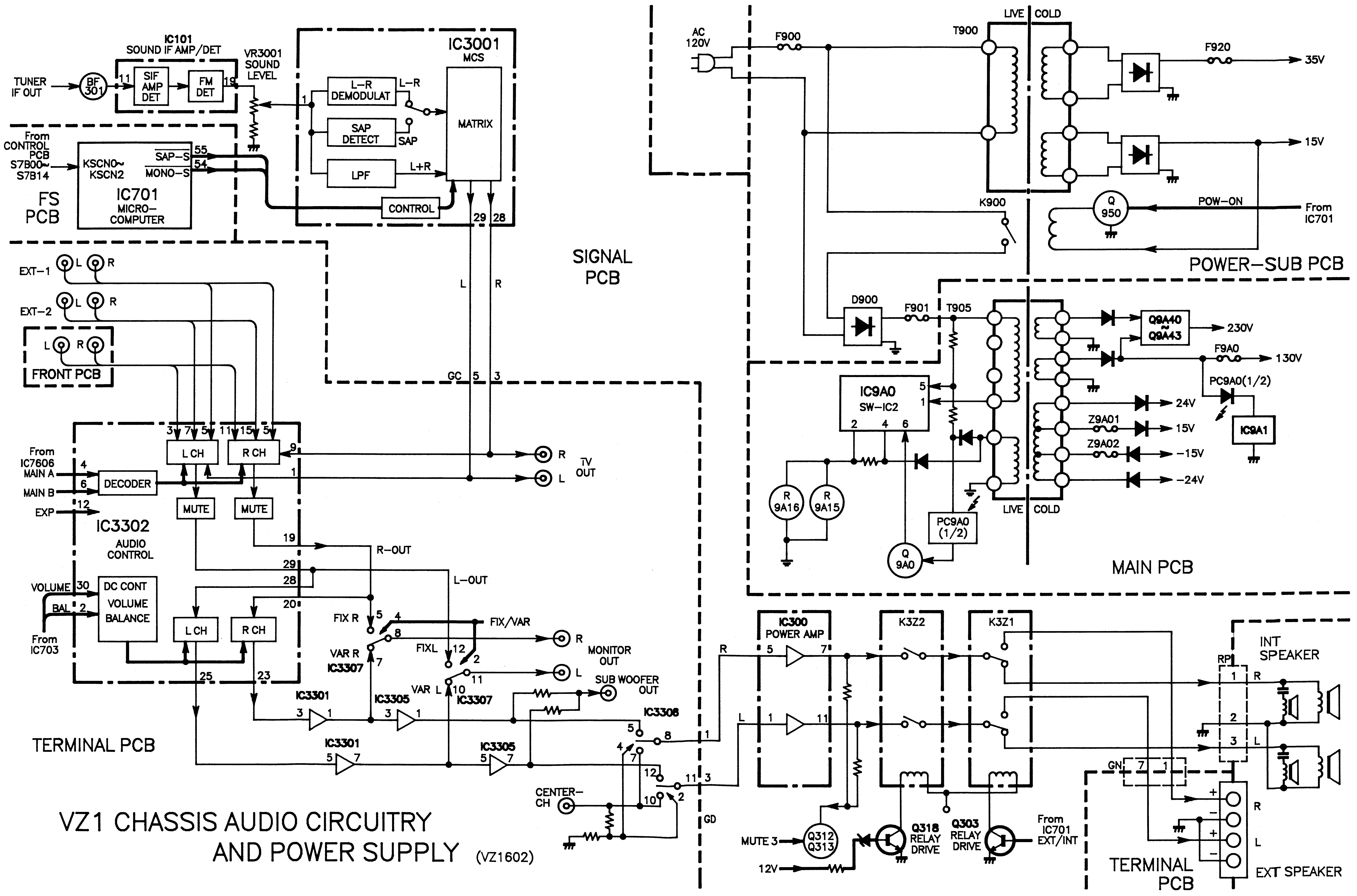

H-SAW CONSTANT CURRENT
V-SAW CONSTANT CURRENT
H.BLK
V BLK
-7.5V
A1
A3
A4
A7
A8
MPX1
MPX2
MPX3
5.6K

VS-40VA2
VS-45VA1
VS-45VA2
VS-50VA1
VS-50VA2
VS-60VA2
VS-45VA2CA
VS-50VA2CA
VS-60VA2CA(4/6)


V/U IN
TUNER
IC101 VIF AMP VIDEO DET
GC
IC7605 VIDEO SW
To IC7603
Q7602
BLK1
TUNER OUT
IC7602 MAIN-VIDEO SW
EXT-1(R) IN
EXT-2 IN
SIG PCB
GK
IC7604 SUB-S /COMP SW
BLK3
MAIN V
MONIT OUT
MAIN A/B
GD
EXT-1 (F) IN
COMP
FD
RD
FRONT PCB
TERMINAL PCB
CF
RF
S7800 ~S7814
CONTROL PCB
EXT-1(F)
FRONT PCB
IC7601 REAR/FR
F/Y
F/C
R/Y
R/C
EXT-1 (R) IN
Y
C
SUB-Y/C
IC7604 SUB-S/COMP SW
Y IN
C IN
Y/C OUT
C-OUT
COMP IN
IC7603 SUB-VIDEO SW
EXT-1 (R)
EXT-1 (F)
EXT-2
TV
From IC701
IC7606 CONTROL DAC
SUB A
SUB B
DATA
SUB-Y/C
SUB -C
SIGNAL PCB
DATA From IC701
IC7101 PIP MEMORY
DL205 COMB FILTER
MAIN Y/C
IC7605
GE
VP
GF
FP
PIP-SD
SUB-SD
(To IC701)
SD2 IN
M-DET1
S-DET2
SUB-Y-IN
SUB-C-IN
Y-OUT
(R-Y) OUT
(B-Y) OUT
S-Y-IN
S-C-IN
MAIN-Y-IN
MAIN-C-IN
PIP-Y-OUT
PIP-C-OUT
IC7000 PIP SIGNAL DISPOSITION
VR7001
VR7002
IC7100 PIP CONTROLLER
SDATA
Y
R-Y
B-Y
Y-OUT
C-OUT
PIP PCB
FS PCB
IC701 MICRO COMPUTER
TU LOCK
TU CLK
DATA
KSCN0~ KSCN2
DI
REMOTE
SKIN
I/Q
PIP-SD
IC702 MEMORY
From PREAMP(PHOTO RECEPT)
GL
IC209 SYNC G
IC203 SYNC-SW
Q201
BLK-2
Q221
DL203
IC204 APERTURE
IC202 BLACK LEVEL CORRECT
DL201
DL202
IQ SW
T201
IC703 D/A CONV
D IN
BRIGHT
TINT
COLOR
SHARP
CONT
Q 2D0
VR204 SUB-CONT
IC201 VIDEO SIGNAL PROCESSOR CHROMA DEMODULATOR
BR
TINT
COLOR
SHARP
CONT
Y-IN
C-IN
I OUT
Q OUT
I IN
Q IN
R-Y
G-Y
B-Y
Y OUT
FILTER
FILTER
Q2N0
Q2N1
Q2K1
IC205 SKIN TONE
R-Y IN
G-Y IN
B-Y IN
SKIN
IC2004 D/A CONV
C-T-1
C-T-2
Q2K3
Q2K5
Q2K4
Q2K6
IC206 VIDEO AMP
R OUT
G OUT
B OUT
-Y
B TEMP
R TEMP
Q2L1
Q2L2
Q2L3
SIGNAL PCB
230V
DR
SR
MAIN PCB
RM
SM
Q6A1 R-AMP
Q6A4 R-OUT
K
(R)
CRT PCB(R)
SL
Q6A2 G-AMP
Q6A5 G-OUT
(G)
CRT PCB(G)
SG
Q6A3 B-AMP
Q6A6 B-OUT
(B)
CRT PCB(B)

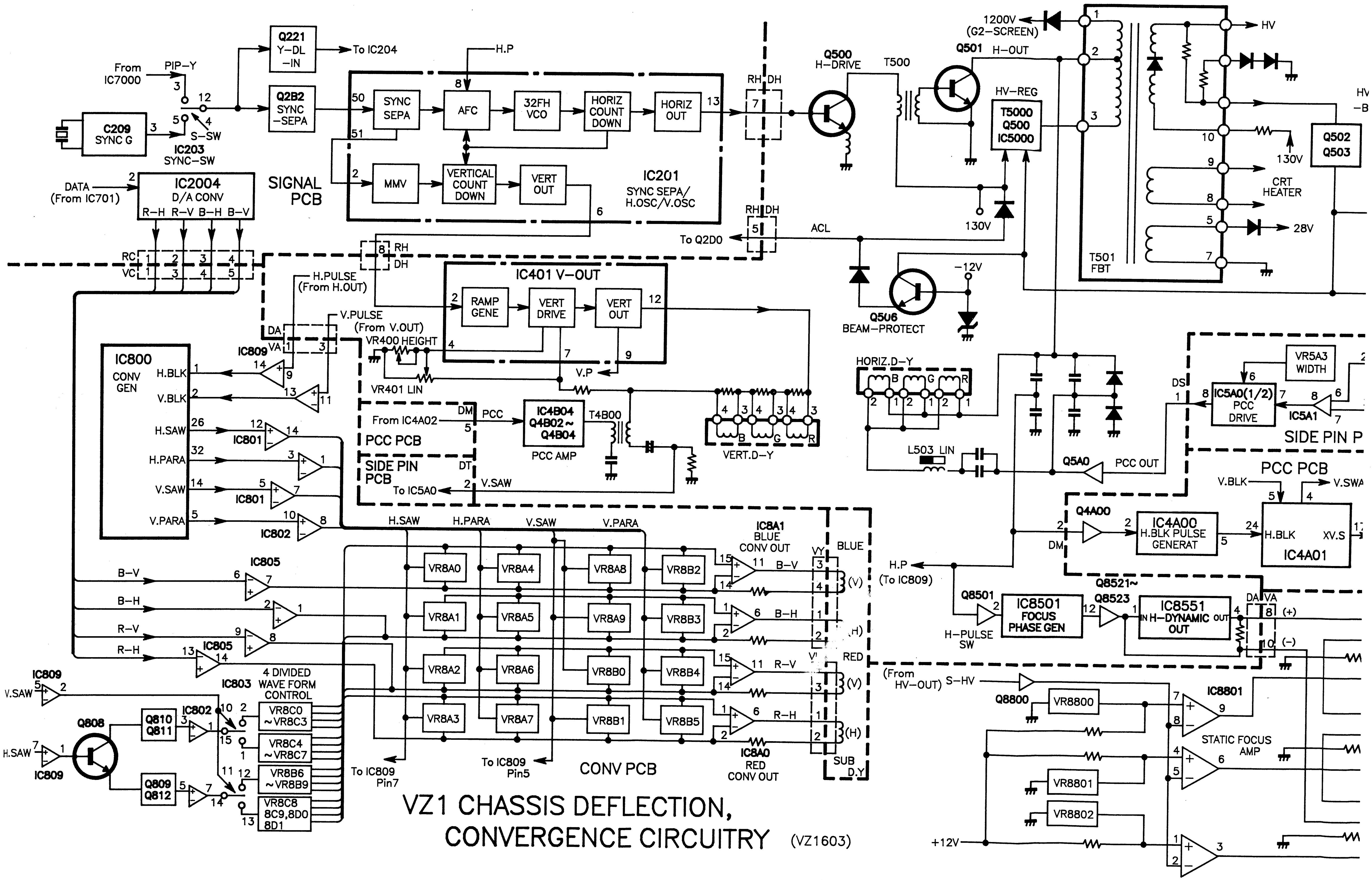
VZ1 CHASSIS
VIDEO SIGNAL CIRCUITRY
(LUMINANCE/CHROMA)

(VZ1601)


IC101
SOUND IF AMP/DET
TUNER IF OUT
BF 301
SIF AMP DET
FM DET
VR3001 SOUND LEVEL
IC3001
MCS
L–R DEMODULAT
SAP DETECT
LPF
L–R
SAP
L+R
MATRIX
CONTROL
29
28
From CONTROL PCB S7B00~ S7B14
KSCN0~ KSCN2
SAP–S
MONO–S
55
54
IC701 MICRO–COMPUTER
FS PCB
SIGNAL PCB
EXT–1
EXT–2
FRONT PCB
L
R
GC
5
3
From IC7606 MAIN A
MAIN B
EXP
DECODER
L CH
R CH
MUTE
IC3302
AUDIO CONTROL
VOLUME
BAL
From IC703
DC CONT VOLUME BALANCE
R–OUT
L–OUT
TV OUT
FIX R
VAR R
IC3307
FIX/VAR
FIXL
VAR L
MONITOR OUT
SUB WOOFER OUT
IC3301
IC3305
IC3308
CENTER–CH
TERMINAL PCB
GD
AC 120V
F900
T900
LIVE
COLD
F920
35V
15V
K900
Q 950
POW–ON
From IC701
POWER–SUB PCB
D900
F901
T905
Q9A40 ~ Q9A43
230V
F9A0
130V
PC9A0(1/2)
IC9A0
SW–IC2
IC9A1
24V
Z9A01
15V
Z9A02
–15V
–24V
R 9A16
R 9A15
PC9A0 (1/2)
Q 9A0
MAIN PCB
IC300
POWER AMP
K3Z2
K3Z1
RP
INT SPEAKER
GN
MUTE 3
Q312 Q313
12V
Q318 RELAY DRIVE
Q303 RELAY DRIVE
From IC701 EXT/INT
TERMINAL PCB
EXT SPEAKER

VZ1 CHASSIS AUDIO CIRCUITRY AND POWER SUPPLY

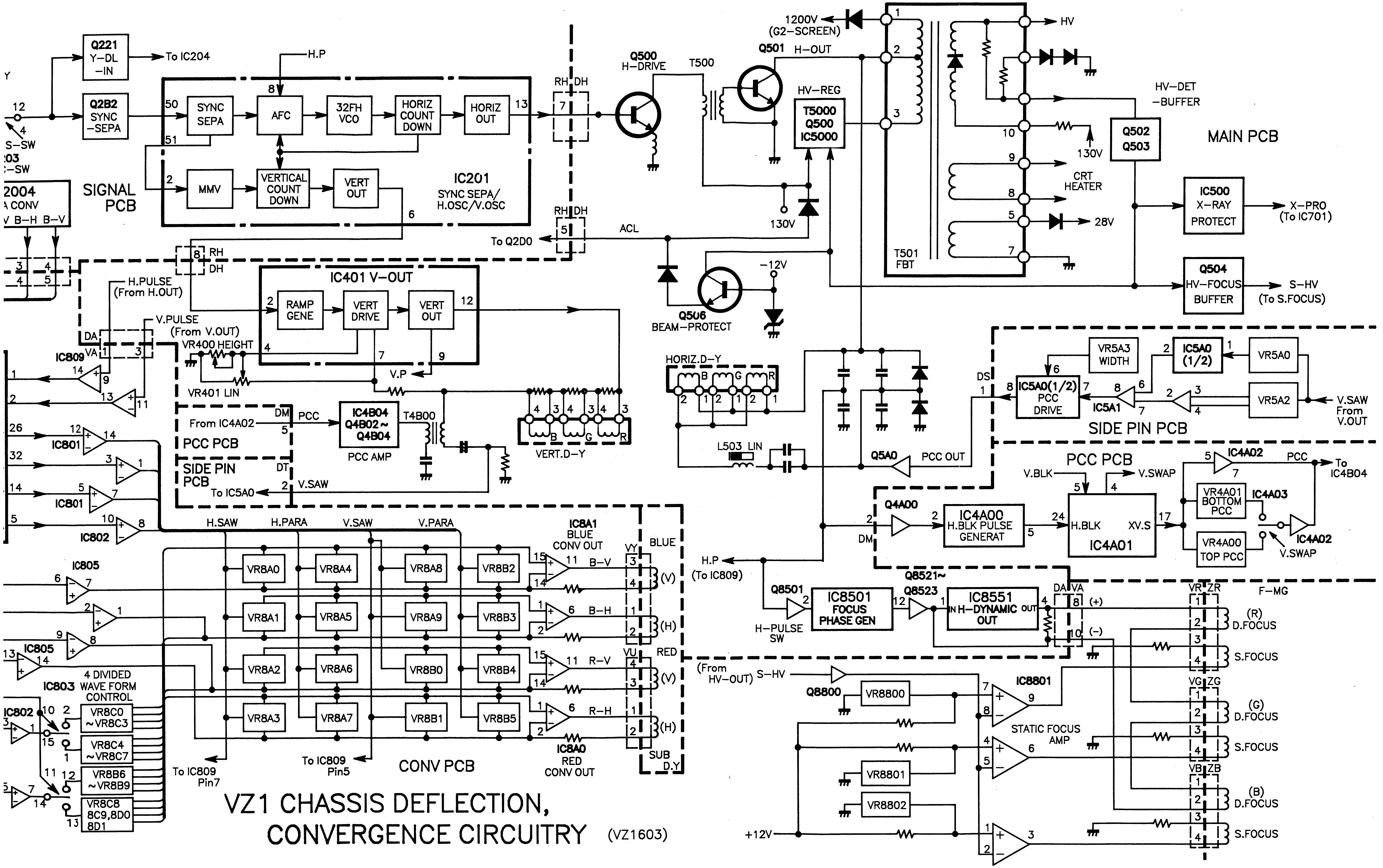
(VZ1602)



VZ1 CHASSIS DEFLECTION, CONVERGENCE CIRCUITRY

(VZ1603)

From IC7000
PIP-Y
C209 SYNC G
IC203 SYNC-SW
S-SW
Q221 Y-DL -IN
To IC204
Q2B2 SYNC -SEPA
H.P
SYNC SEPA
AFC
32FH VCO
HORIZ COUNT DOWN
HORIZ OUT
MMV
VERTICAL COUNT DOWN
VERT OUT
IC201 SYNC SEPA/ H.OSC/V.OSC
SIGNAL PCB
DATA (From IC701)
IC2004 D/A CONV
R-H R-V B-H B-V
RC VC
RH DH
To Q2D0
ACL
Q500 H-DRIVE
T500
Q501 H-OUT
1200V (G2-SCREEN)
HV-REG
T5000 Q500 IC5000
130V
Q506 BEAM-PROTECT
-12V
HV
CRT HEATER
28V
T501 FBT
Q502 Q503
IC401 V-OUT
RAMP GENE
VERT DRIVE
VERT OUT
H.PULSE (From H.OUT)
V.PULSE (From V.OUT)
DA VA
VR400 HEIGHT
VR401 LIN
V.P
IC800 CONV GEN
H.BLK
V.BLK
H.SAW
H.PARA
V.SAW
V.PARA
IC809
IC801
IC802
From IC4A02
DM
PCC
PCC PCB
IC4B04 Q4B02~ Q4B04
PCC AMP
T4B00
SIDE PIN PCB
DT
To IC5A0
VERT.D-Y
HORIZ.D-Y
L503 LIN
Q5A0
PCC OUT
DS
IC5A0(1/2) PCC DRIVE
IC5A1
VR5A3 WIDTH
SIDE PIN P
PCC PCB
V.BLK
V.SWA
Q4A00
IC4A00 H.BLK PULSE GENERAT
H.BLK
XV.S
IC4A01
H.P (To IC809)
Q8501
IC8501 FOCUS PHASE GEN
H-PULSE SW
Q8521~ Q8523
IC8551 H-DYNAMIC OUT
IN
OUT
(+)
(-)
(From HV-OUT) S-HV
Q8800
VR8800
IC8801
STATIC FOCUS AMP
VR8801
VR8802
+12V
B-V
B-H
R-V
R-H
IC805
IC803
4 DIVIDED WAVE FORM CONTROL
V.SAW
H.SAW
Q808
Q810 Q811
Q809 Q812
VR8C0 ~VR8C3
VR8C4 ~VR8C7
VR8B6 ~VR8B9
VR8C8 8C9,8D0 8D1
VR8A0
VR8A1
VR8A2
VR8A3
VR8A4
VR8A5
VR8A6
VR8A7
VR8A8
VR8A9
VR8B0
VR8B1
VR8B2
VR8B3
VR8B4
VR8B5
IC8A1 BLUE CONV OUT
IC8A0 RED CONV OUT
VY
BLUE
RED
(V)
(H)
SUB D.Y
To IC809 Pin7
To IC809 Pin5
CONV PCB


Y
Q221 Y-DL -IN
To IC204
Q2B2 SYNC -SEPA
12
4
S-SW
03
-SW
2004
CONV
B-H B-V
SIGNAL PCB
H.P
50
51
SYNC SEPA
8
AFC
32FH VCO
HORIZ COUNT DOWN
HORIZ OUT
13
2
MMV
VERTICAL COUNT DOWN
VERT OUT
IC201
SYNC SEPA/ H.OSC/V.OSC
6
RH DH
7
RH DH
5
To Q2D0
ACL
8 RH DH
H.PULSE (From H.OUT)
V.PULSE (From V.OUT)
DA VA 1 3
IC809
14
9
13
11
VR400 HEIGHT
VR401 LIN
IC401 V-OUT
2 RAMP GENE
VERT DRIVE
VERT OUT
12
4
7
9
V.P
From IC4A02
DM
5
PCC
PCC PCB
IC4B04 Q4B02~ Q4B04
PCC AMP
T4B00
SIDE PIN PCB
DT
2
V.SAW
To IC5A0
4 3 4 3 4 3
B G R
VERT.D-Y
Q500 H-DRIVE
T500
Q501 H-OUT
HV-REG
T5000 Q500 IC5000
130V
Q506 BEAM-PROTECT
-12V
1200V (G2-SCREEN)
1 2 3
HV
10
130V
9
8
CRT HEATER
5
28V
7
T501 FBT
HV-DET -BUFFER
Q502 Q503
MAIN PCB
IC500 X-RAY PROTECT
X-PRO (To IC701)
Q504 HV-FOCUS BUFFER
S-HV (To S.FOCUS)
HORIZ.D-Y
B G R
2 1 2 1 2 1
L503 LIN
Q5A0
PCC OUT
DS 1
8
IC5A0(1/2) PCC DRIVE
6
VR5A3 WIDTH
7
IC5A1
IC5A0 (1/2)
2 1
VR5A0
VR5A2
3 4
V.SAW From V.OUT
SIDE PIN PCB
PCC PCB
V.BLK
5
4
V.SWAP
IC4A02
PCC
To IC4B04
Q4A00
2
DM
IC4A00 H.BLK PULSE GENERAT
24 H.BLK XV.S 17
IC4A01
VR4A01 BOTTOM PCC
IC4A03
VR4A00 TOP PCC
IC4A02
V.SWAP
F-MG
H.P (To IC809)
Q8501
H-PULSE SW
IC8501 FOCUS PHASE GEN
12
Q8521~ Q8523
IC8551 IN H-DYNAMIC OUT OUT
DA VA
8 (+)
10 (-)
VR ZR
(R) D.FOCUS
S.FOCUS
(From HV-OUT) S-HV
Q8800
VR8800
IC8801
STATIC FOCUS AMP
VG ZG
(G) D.FOCUS
S.FOCUS
VR8801
VR8802
VB ZB
(B) D.FOCUS
S.FOCUS
+12V
1
2
26
IC801
32
14
IC801
5
IC802
H.SAW H.PARA V.SAW V.PARA
VR8A0 VR8A4 VR8A8 VR8B2
VR8A1 VR8A5 VR8A9 VR8B3
VR8A2 VR8A6 VR8B0 VR8B4
VR8A3 VR8A7 VR8B1 VR8B5
IC8A1 BLUE CONV OUT
B-V
B-H
R-V
R-H
IC8A0 RED CONV OUT
VY BLUE
(V)
(H)
VU RED
(V)
(H)
SUB D.Y
IC805
IC805
4 DIVIDED
IC803 WAVE FORM CONTROL
IC802
VR8C0 ~VR8C3
VR8C4 ~VR8C7
VR8B6 ~VR8B9
VR8C8 8C9,8D0 8D1
To IC809 Pin7
To IC809 Pin5
CONV PCB

VZ1 CHASSIS DEFLECTION, CONVERGENCE CIRCUITRY

(VZ1603)

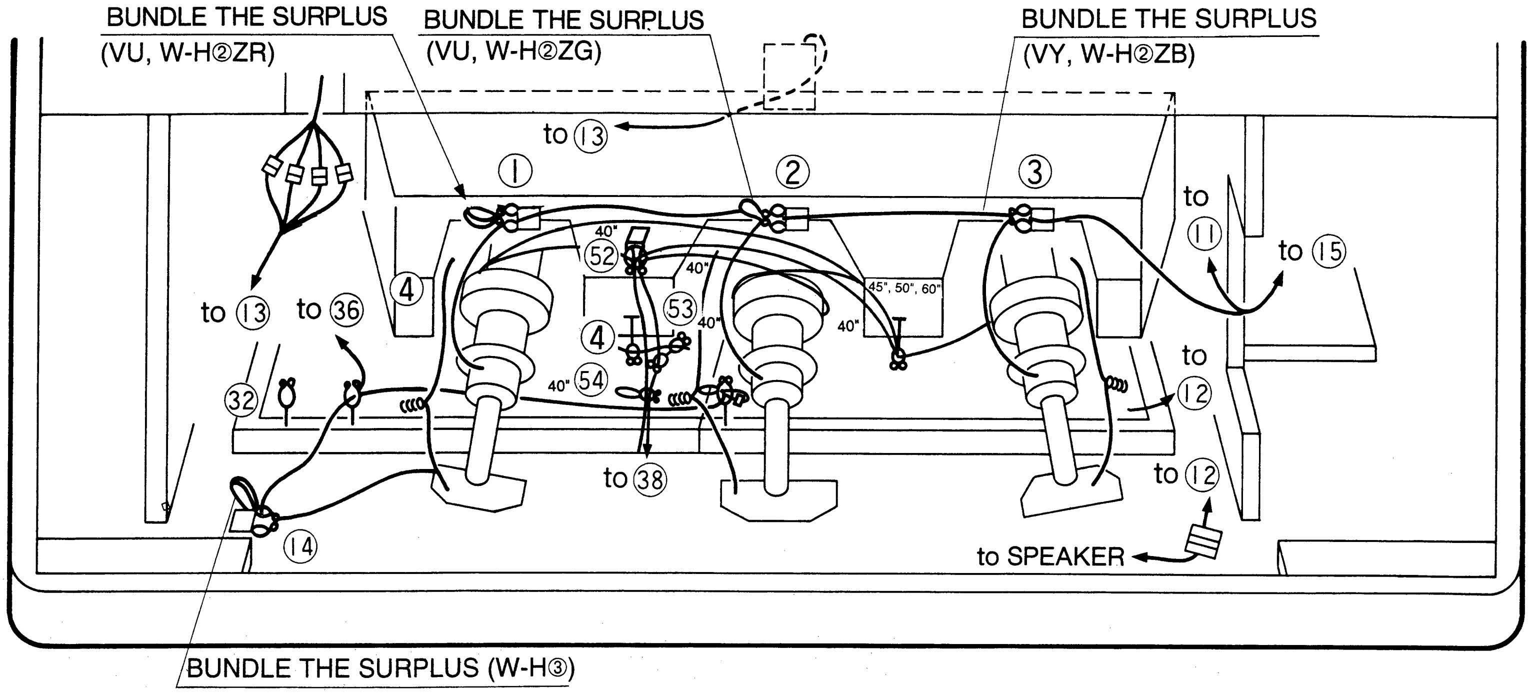
LEAD DRESSING

The lead wires clamped are listed in the table below.

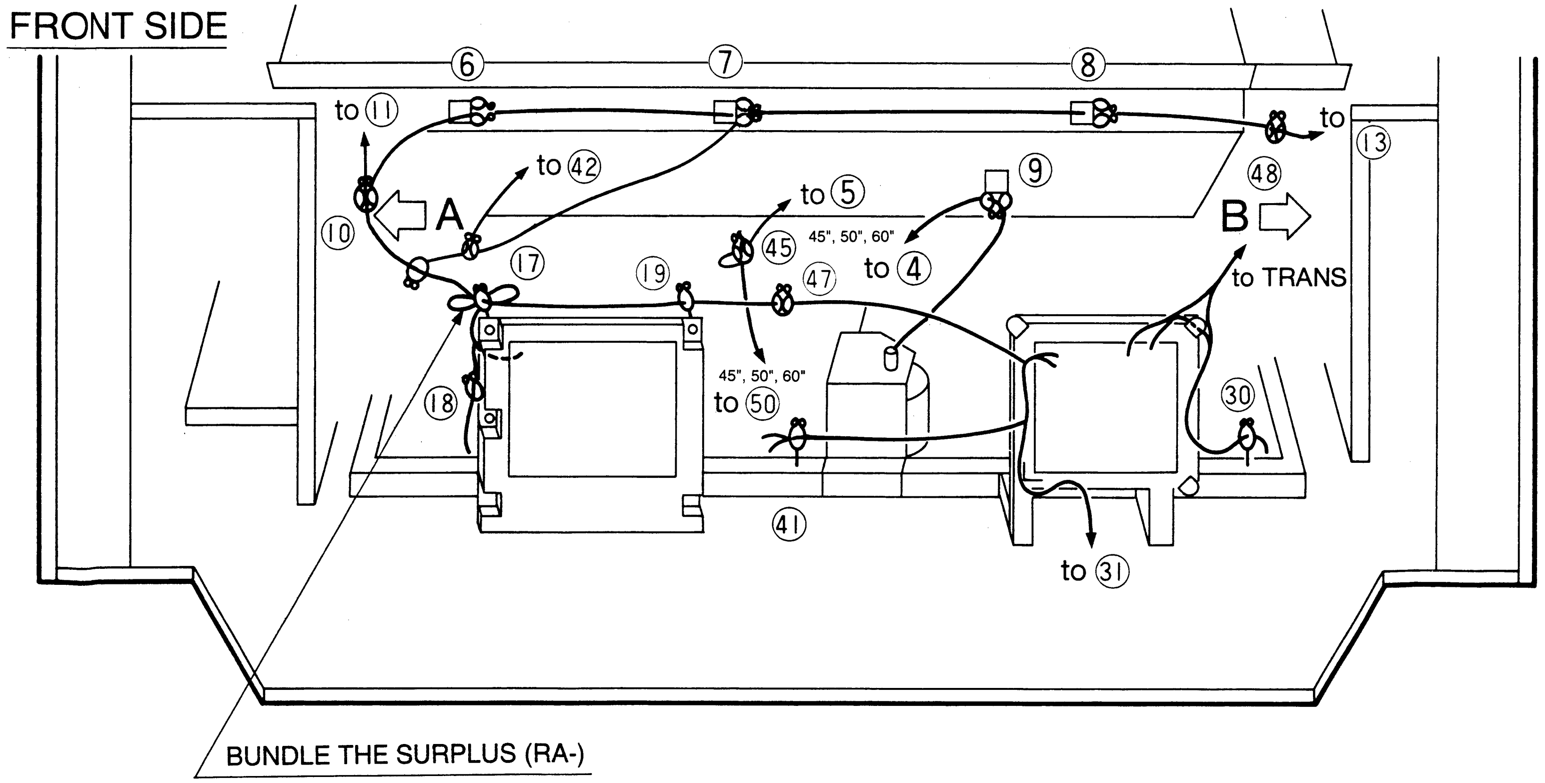
Note: The inner wires are clamped so that they do not come close to the heat generating or high-tension parts. After servicing route all wires in their original position.

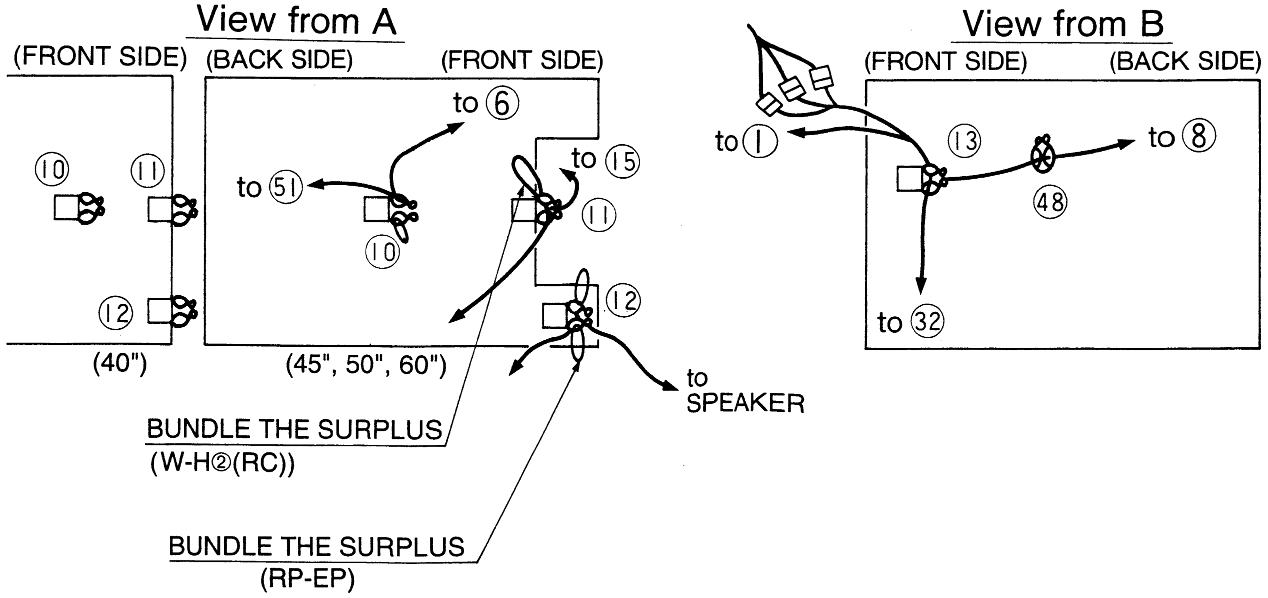
The anode lead wires are routed so no tensile strength is applied to the anode cap. If the mounting angle of the anode cap and the route of the anode lead wires are changed return them to the initial angle and route.

REAR SIDE


BUNDLE THE SURPLUS (VU, W-H②ZR)
BUNDLE THE SURPLUS (VU, W-H②ZG)
BUNDLE THE SURPLUS (VY, W-H②ZB)
to ⑬
①
②
③
to ⑪
to ⑮
to ⑬
to ㊱
④
40"
(52)
(53)
40"
45", 50", 60"
40"
④
40"
(54)
㉜
to ⑫
to ㊳
to ⑫
⑭
to SPEAKER
BUNDLE THE SURPLUS (W-H③)

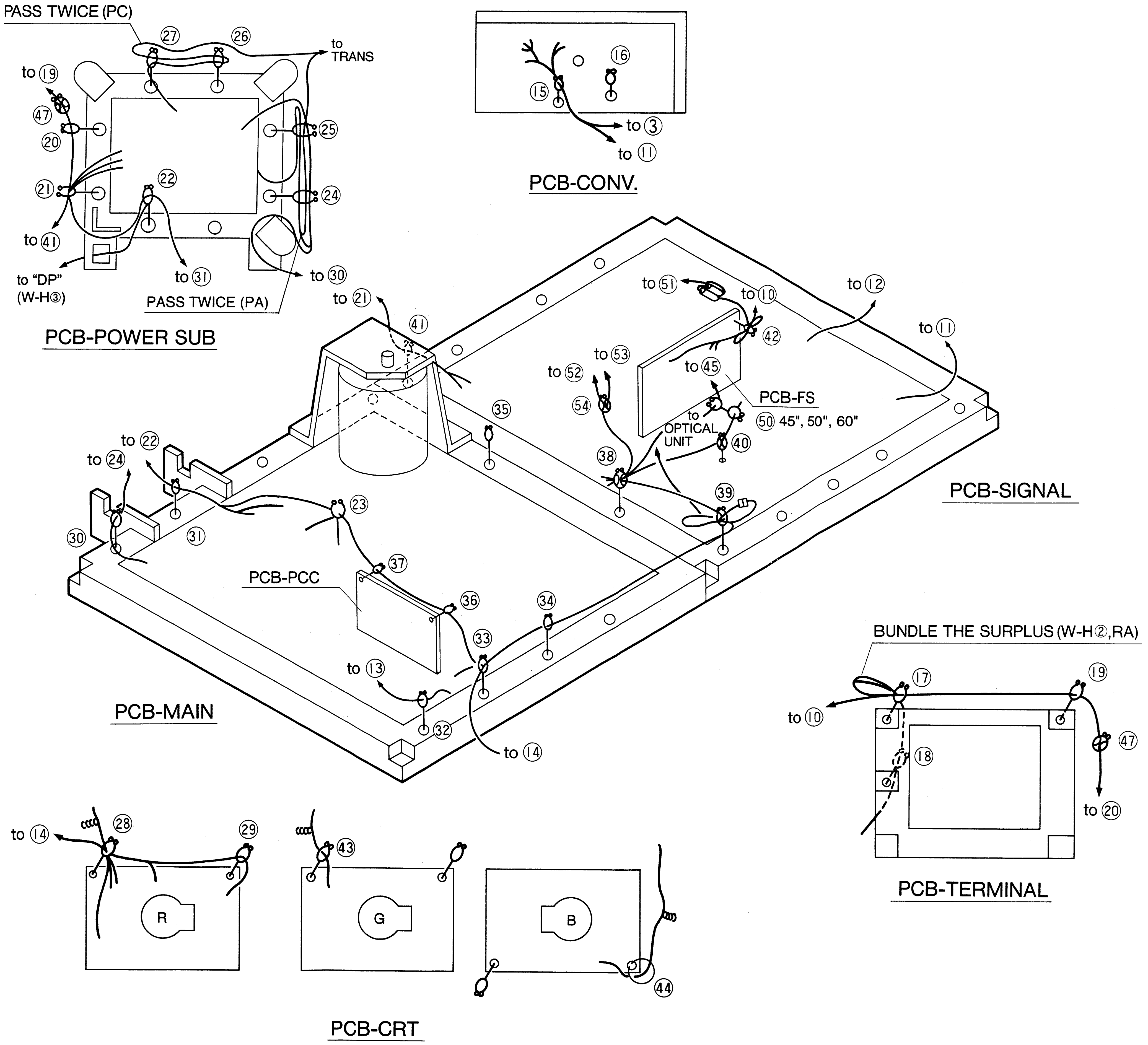
FRONT SIDE


⑥
⑦
⑧
to ⑪
to ⑬
to ㊷
⑩
A
to ⑤
⑨
㊽
B
⑰
⑲
㊺
45", 50", 60"
㊼
to ④
to TRANS
⑱
45", 50", 60"
to ㊿
㉚
㊶
to ㉛
BUNDLE THE SURPLUS (RA-)


View from A
(FRONT SIDE)
(BACK SIDE)
(FRONT SIDE)
⑩
⑪
⑫
(40")
to ⑥
to (51)
⑩
to ⑮
⑪
⑫
to SPEAKER
(45", 50", 60")
BUNDLE THE SURPLUS (W-H②(RC))
BUNDLE THE SURPLUS (RP-EP)
View from B
(FRONT SIDE)
(BACK SIDE)
to ①
⑬
to ⑧
㊽
to ㉜

CONNECTOR LEAD and WIRE HARNESS LIST FOR CLAMPER

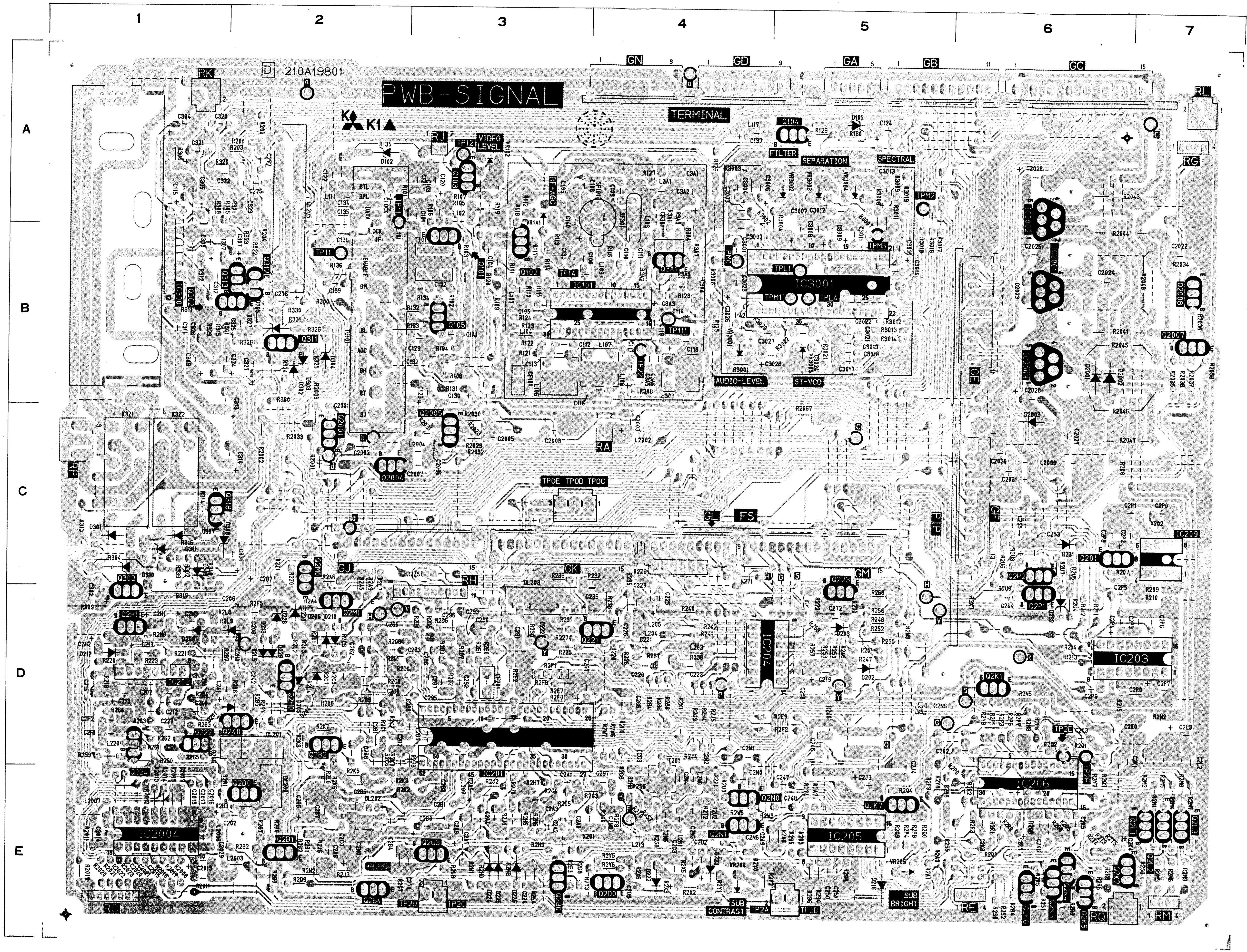
No.	ITEM	LEAD CONNECTOR or WIRE HARNESS (W-H)
1	OPTICAL UNIT	W-H②, VU-SUB-DY(R) (BUNDLE THE SURPLUS)
2	OPTICAL UNIT	W-H②, VU-SUB-DY(R)
3	OPTICAL UNIT	W-H②, VU-SUB-DY(R), VY-SUB-DY(B)
4	OPTICAL UNIT	ANODE-LEAD
5	OPTICAL UNIT	(B-DY,40") (R-DY,G-DY,B-DY, 40",45",50",60")
6	OPTICAL UNIT	W-H①, W-H②,
7	OPTICAL UNIT	W-H①, W-H②, AN-RN
8	OPTICAL UNIT	W-H①, W-H②, AN-RN
9	OPTICAL UNIT	ANODE-LEAD
10		W-H①, W-H②
11		W-H②
12		RP-EP (BUNDLE THE SURPLUS)
13		W-H①, W-H②, AN-RN
14		W-H③ (BUNDLE THE SURPLUS)
17	PCB-TERMINAL	W-H①, W-H②, RA- (BUNDLE THE SURPLUS), DJ-RJ, PK-RK
18	PCB-TERMINAL	DJ-RJ, PK-RK, RA
19	PCB-TERMINAL	W-H②, DJ-RJ, PK-RK
30	PCB-MAIN	PB-DB
32	PCB-MAIN	W-H②
41	PCB-SIGNAL	PG-RG, PK-RL
45		{R-DY, G-DY (BUNDLE THE SURPLUS)} {B-DY (PASS TWICE, BUNDLE THE SURPLUS)} 45", 50", 60"
46		
47		W-H②, DJ-RJ, PK-RK
48		W-H①, AN-RN
51		W-H①, W-H② , AN-RN
52	OPTICAL UNIT	{R-DY,G-DY,B-DY (PASS: TWICE)} 40"
53		(R-DY,G-DY,B-DY, ANODE-LEAD) 40"
54		R-DY(PATH THREE), {G-DY,B-DY(PATH TWICE,BUNDLE THE SURPLUS)} 40"


PASS TWICE (PC)
㉗
㉖
to TRANS
to ⑲
㊼
⑳
㉑
㉒
㉕
㉔
to ㊶
to "DP" (W-H③)
to ㉛
to ㉚
PASS TWICE (PA)
PCB-POWER SUB
⑯
⑮
to ③
to ⑪
PCB-CONV.
to ㉑
㊶
㉟
to (52)
to (53)
(54)
to (51)
to ⑩
㊷
to ㊺
PCB-FS
to OPTICAL UNIT
㊿ 45", 50", 60"
㊵
㊳
㊴
to ⑫
to ⑪
PCB-SIGNAL
to ㉒
to ㉔
㉚
㉛
㉓
㊲
PCB-PCC
㊱
㉞
㉝
to ⑬
㉜
to ⑭
PCB-MAIN
BUNDLE THE SURPLUS (W-H②,RA)
⑰
⑲
to ⑩
⑱
㊼
to ⑳
PCB-TERMINAL
to ⑭
㉘
㉙
R
㊸
G
B
㊹
PCB-CRT

CONNECTOR LEAD and WIRE HARNESS LIST FOR CLAMPER

No.	ITEM	LEAD CONNECTOR or WIRE HARNESS (W-H)
15	PCB-CONV	W-H② ,VU-SUB-DY(R), VY-SUB-DY(B)
16	PCB-CONV	VU-SUB-DY(R), VY-SUB-DY(B)
17	PCB-TERMINAL	W-H①, {W-H②, RA- [BUNDLE THE SURPLUS]} DJ-RJ, PK-RK
18	PCB-TERMINAL	DJ-RJ, PK-RK, RA
19	PCB-TERMINAL	W-H②, DJ-RJ, PK-RK
20	PCB-POWER-SUB	W-H②, DJ-RJ, PG-RG, PK-RK, RL (PASS TWICE)
21	PCB-POWER-SUB	W-H②, DJ-RJ, PG-RG, PK-RL(PASS THREE),PZ-DZ
22	PCB-POWER-SUB	W-H②, DJ-RJ, W-H③ , PZ-DZ
23	PCB-MAIN	W-H②, W-H③ , PZ-DZ
24	PCB-POWER-SUB	PB-DB, PA (PASS TWICE)
25	PCB-POWER-SUB	PB-DB, PA (PASS THREE TIMES)
26	PCB-POWER-SUB	PC (PASS TWICE)
27	PCB-POWER-SUB	PC (PASS TWICE)
28	PCB-CRT	W-H③, SA
29	PCB-CRT	W-H③
30	PCB-MAIN	PB-DB
31	PCB-MAIN	W-H②, DJ-RJ, PZ-DZ , W-H③
32	PCB-MAIN	W-H②
33	PCB-MAIN	W-H③
34	PCB-MAIN	W-H③
35	PCB-MAIN	W-H③
36	PCB-PCC	W-H③
37	PCB-PCC	W-H③
38	PCB-SIGNAL	W-H③, DH-RH, G-DY, B-DY (PASS TWICE 45”,50”, 6 R-DY (PASS TWICE 40”)
39	PCB-SIGNAL	W-H③ (XY-BUNDLE THE SUR PLUS)
40	PCB-SIGNAL	DH-RH
41	PCB-SIGNAL	PG-RG, PK-RL
42	PCB-SIGNAL	W-H①, AN-RN
43	PCB-CRT	SA
44		SA
47		W-H②, DJ-RJ, PK-RK
50		R-GY,G-DY, B-DY(PASS THREE) DH-RH 45”,50”,60”

PCB-SIGNAL


1
2
3
4
5
6
7
A
B
C
D
E
PWB-SIGNAL
210A19801
TERMINAL
GN
GD
GA
GB
GC
RK
RL
RG
RJ
VIDEO LEVEL
FILTER
SEPARATION
SPECTRAL
AUDIO-LEVEL
ST-VCO
IC3001
IC101
TPOE TPOD TPOC
GL
FS
RA
RP
CJ
GK
GM
RH
IC201
IC202
IC203
IC204
IC205
IC206
IC209
IC2004
SUB CONTRAST
SUB BRIGHT
TP2A
TP2B
TP2C
TP2D
RE
RQ
RM
RC

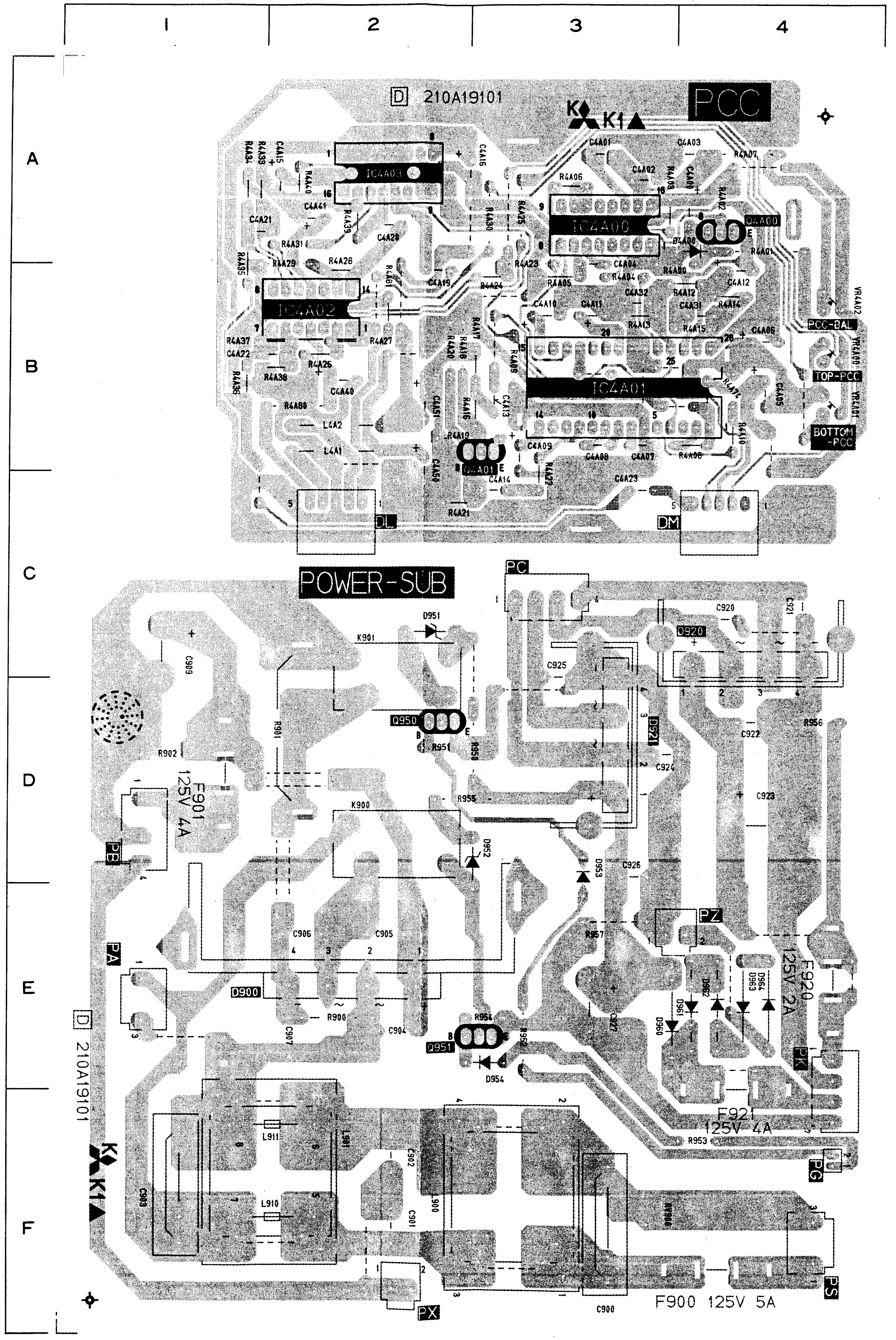
PCB-SIGNAL

SYMBOL NO.	ADDRESS
CF101	B – 3
CF201	D – 3
CF301	B – 4
D101	A – 5
D102	A – 2
D201	D – 1
D202	D – 5
D203	D – 5
D204	D – 2
D205	D – 2
D206	D – 2
D208	D – 2
D209	D – 1
D210	D – 2
D212	D – 1
D213	D – 2
D216	E – 5
D220	D – 2
D222	E – 4
D223	E – 4
D224	E – 3
D225	E – 3
D226	E – 3
D228	D – 2
D229	D – 2
D231	C – 6
D232	D – 6
D301	C – 1
D302	B – 2
D303	B – 2
D304	B – 2
D305	B – 2
D307	C – 1
D308	C – 1
D309	C – 1
D310	C – 1
D311	C – 1
D2001	B – 6
D2002	B – 6
D2003	C – 6
DL200	E – 2
DL201	D – 2
DL202	E – 2
DL203	D – 3
DL205	A – 2
IC101	B – 3
IC201	D – 3
IC202	D – 1
IC203	D – 6
IC204	D – 4
IC205	E – 5
IC206	E – 5
IC209	C – 7
IC300	B – 1
IC2001	B – 6
IC2002	A – 6
IC2003	B – 6

B-SIGNAL

SYMBOL NO.	ADDRESS
01	B – 3
01	D – 3
01	B – 4
1	A – 5
2	A – 2
1	D – 1
2	D – 5
3	D – 5
4	D – 2
5	D – 2
6	D – 2
8	D – 2
9	D – 1
0	D – 2
2	D – 1
3	D – 2
6	E – 5
0	D – 2
2	E – 4
3	E – 4
4	E – 3
5	E – 3
6	E – 3
8	D – 2
9	D – 2
1	C – 6
2	D – 6
1	C – 1
2	B – 2
3	B – 2
4	B – 2
5	B – 2
7	C – 1
8	C – 1
9	C – 1
0	C – 1
1	C – 1
01	B – 6
02	B – 6
03	C – 6
00	E – 2
01	D – 2
02	E – 2
03	D – 3
05	A – 2
1	B – 3
1	D – 3
2	D – 1
3	D – 6
4	D – 4
5	E – 5
6	E – 5
9	C – 7
0	B – 1
001	B – 6
002	A – 6
003	B – 6
IC2004	E – 1
IC3001	B – 5
K3Z1	C – 1
K3Z2	C – 1
L101	A – 2
L102	A – 3
L103	A – 4
L104	B – 3
L105	A – 3
L106	B – 3
L107	B – 4
L108	B – 4
L109	B – 4
L111	A – 2
L117	A – 4
L202	D – 1
L203	D – 4
L204	D – 4
L205	D – 4
L207	E – 3
L212	D – 5
L213	E – 4
L220	D – 1
L2N0	E – 4
L2N1	E – 4
L303	B – 4
L3A1	A – 4
L2002	C – 4
L2003	E – 2
L2004	C – 3
L2006	E – 1
L2007	E – 1
L2009	C – 6
Q101	B – 3
Q102	B – 3
Q103	A – 3
Q104	A – 5
Q105	B – 3
Q201	C – 6
Q221	D – 4
Q222	D – 1
Q223	C – 5
Q224	D – 1
Q240	D – 2
Q263	E – 3
Q264	E – 2
Q280	E – 3
Q2B0	E – 2
Q2B1	E – 2
Q2B2	D – 2
Q2D0	E – 4
Q2H0	D – 2
Q2H1	D – 1
Q2K1	D – 6
Q2K2	E – 6
Q2K3	E – 6
Q2K4	E – 6
Q2K5	E – 6
Q2K6	E – 6
Q2K7	E – 5
Q2L1	E – 7
Q2L2	E – 7
Q2L3	E – 7
Q2M0	C – 2
Q2M1	D – 2
Q2N0	E – 4
Q2N1	E – 4
Q2P1	C – 6
Q2P1	D – 6
Q302	B – 2
Q303	C – 1
Q311	B – 2
Q312	B – 2
Q313	B – 2
Q318	C – 1
Q3A1	B – 4
Q2001	C – 2
Q2004	C – 2
Q2005	C – 3
Q2007	B – 7
Q2008	B – 7
SF101	A – 4
SF301	A – 4
T101	B – 3
T201	E – 4
TP111	B – 4
TP11	A – 2
TP11	B – 2
TP12	A – 3
TP14	B – 3
TP22	B – 4
TP2A	E – 4
TP2B	E – 5
TP2C	E – 3
TP2D	E – 3
TP2E	D – 6
TP2F	D – 6
TPL1	B – 5
TPL4	B – 5
TPM0	B – 4
TPM1	B – 5
TPM2	A – 5
TPM5	B – 5
TU101	B – 2
VR102	A – 3
VR1A1	A – 3
VR204	E – 4
VR205	E – 5
VR3001	B – 4
VR3002	A – 5
VR3003	A – 5
VR3004	A – 5
VR3005	B – 5
X201	E – 3
X202	C – 7

PCB-PCC/POWER SUB

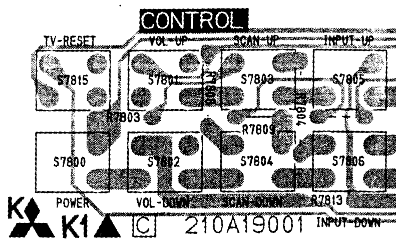


1
2
3
4
A
B
C
D
E
F
D 210A19101
K1
PCC
IC4A03
IC4A00
IC4A02
IC4A01
Q4A00
D4A00
Q4A01
PCC-BAL
TOP-PCC
BOTTOM-PCC
DL
DM
POWER-SUB
PC
D951
K901
C920
D920
C925
Q950
R951
D921
C922
R956
R902
F901 125V 4A
PB
K900
R955
D952
D953
C926
C923
PZ
PA
C906
C905
R957
F920 125V 2A
D900
R900
C907
C904
Q951
R954
D954
D960
D961
D962
D963
D964
PK
D 210A19101
K1
F921 125V 4A
R953
PG
L911
L910
L901
C902
C901
L900
C903
C900
PX
F900 125V 5A
PS

PCB-PCC/ POWER SUB

SYMBOL NO.	ADDRESS
D4A00	A – 4
D900	E – 1
D920	C – 4
D921	D – 3
D951	C – 2
D952	D – 3
D953	D – 3
D954	E – 3
D960	E – 3
D961	E – 4
D962	E – 4
D963	E – 4
D964	E – 4
F900	F – 3
F901	D – 1
F920	E – 4
F921	F – 4
IC4A00	A – 3
IC4A01	B – 3
IC4A02	B – 2
IC4A03	A – 2
K900	D – 2
K901	C – 2
L4A1	B – 2
L4A2	B – 2
L900	F – 2
L901	F – 2
L910	F – 2
L911	F – 2
Q4A00	A – 4
Q4A01	B – 2
Q950	D – 2
Q951	E – 3
VR4A00	B – 4
VR4A01	B – 4
VR4A02	B – 4

PCB-CONTROL

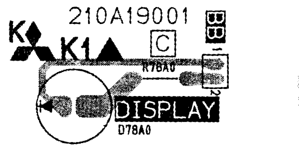


CONTROL
TV-RESET
VOL-UP
SCAN-UP
INPUT-UP
POWER
VOL-DOWN
SCAN-DOWN
INPUT-DOWN
K1
C 210A19001

PCB-PREAMP

K1
C 210A19001
PREAMP

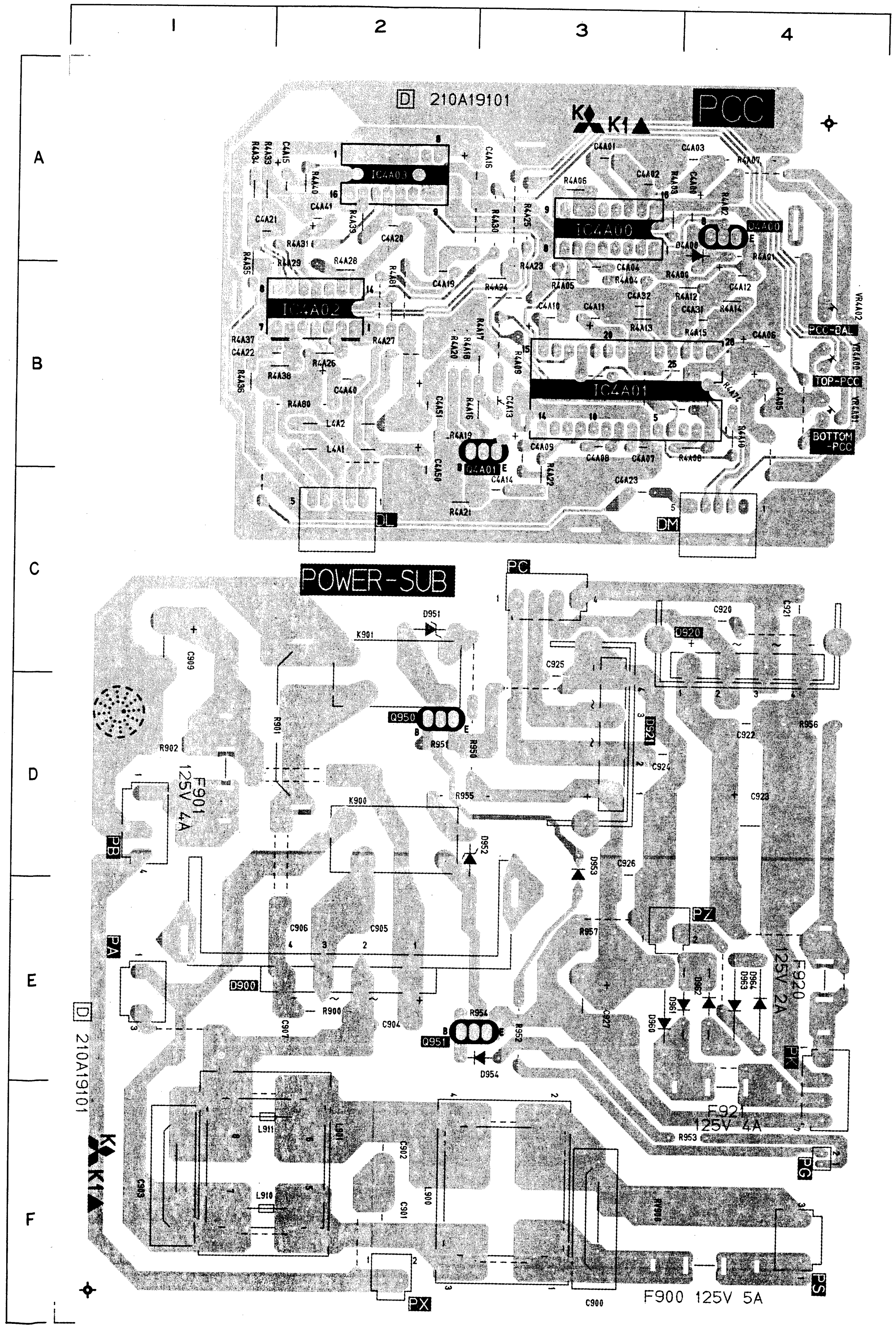
PCB-DISPLAY



210A19001
BB
K1
C
DISPLAY
D78A0

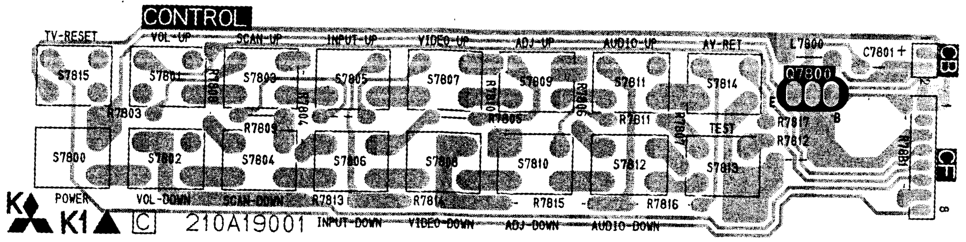
	ADDRESS
5	B – 5
	E – 3
	C – 7

PCB-PCC/POWER SUB

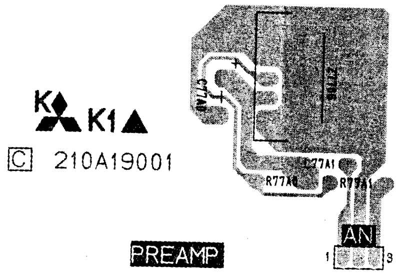

1
2
3
4
A
B
C
D
E
F
D 210A19101
K1
PCC
IC4A03
IC4A02
IC4A00
IC4A01
Q4A00
Q4A01
D4A00
PCC-BAL
TOP-PCC
BOTTOM-PCC
VR4A00
VR4A01
VR4A02
DL
DM
POWER-SUB
PC
K901
D951
D920
C920
C921
C925
C909
Q950
R951
R956
R901
R902
D921
C922
C924
R955
K900
F901 125V 4A
PB
D952
D953
C926
C923
R956
PZ
PA
C906
C905
R957
D900
R900
C907
C904
R954
Q951
D954
R952
D960
D961
D962
D963
D964
F920 125V 2A
PK
F921 125V 4A
R953
PG
L911
L901
C902
L910
C901
L900
C903
PX
C900
F900 125V 5A
PS
D 210A19101

SYMBOL NO.	ADDRESS
D4A00	A – 4
D900	E – 1
D920	C – 4
D921	D – 3
D951	C – 2
D952	D – 3
D953	D – 3
D954	E – 3
D960	E – 3
D961	E – 4
D962	E – 4
D963	E – 4
D964	E – 4
F900	F – 3
F901	D – 1
F920	E – 4
F921	F – 4
IC4A00	A – 3
IC4A01	B – 3
IC4A02	B – 2
IC4A03	A – 2
K900	D – 2
K901	C – 2
L4A1	B – 2
L4A2	B – 2
L900	F – 2
L901	F – 2
L910	F – 2
L911	F – 2
Q4A00	A – 4
Q4A01	B – 2
Q950	D – 2
Q951	E – 3
VR4A00	B – 4
VR4A01	B – 4
VR4A02	B – 4

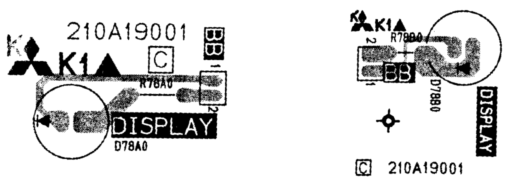
PCB-CONTROL


CONTROL
TV-RESET
VOL-UP
SCAN-UP
INPUT-UP
VIDEO-UP
ADJ-UP
AUDIO-UP
AV-RET
TEST
POWER
VOL-DOWN
SCAN-DOWN
INPUT-DOWN
VIDEO-DOWN
ADJ-DOWN
AUDIO-DOWN
Q7800
CB
CF
K1
C 210A19001

PCB-PREAMP

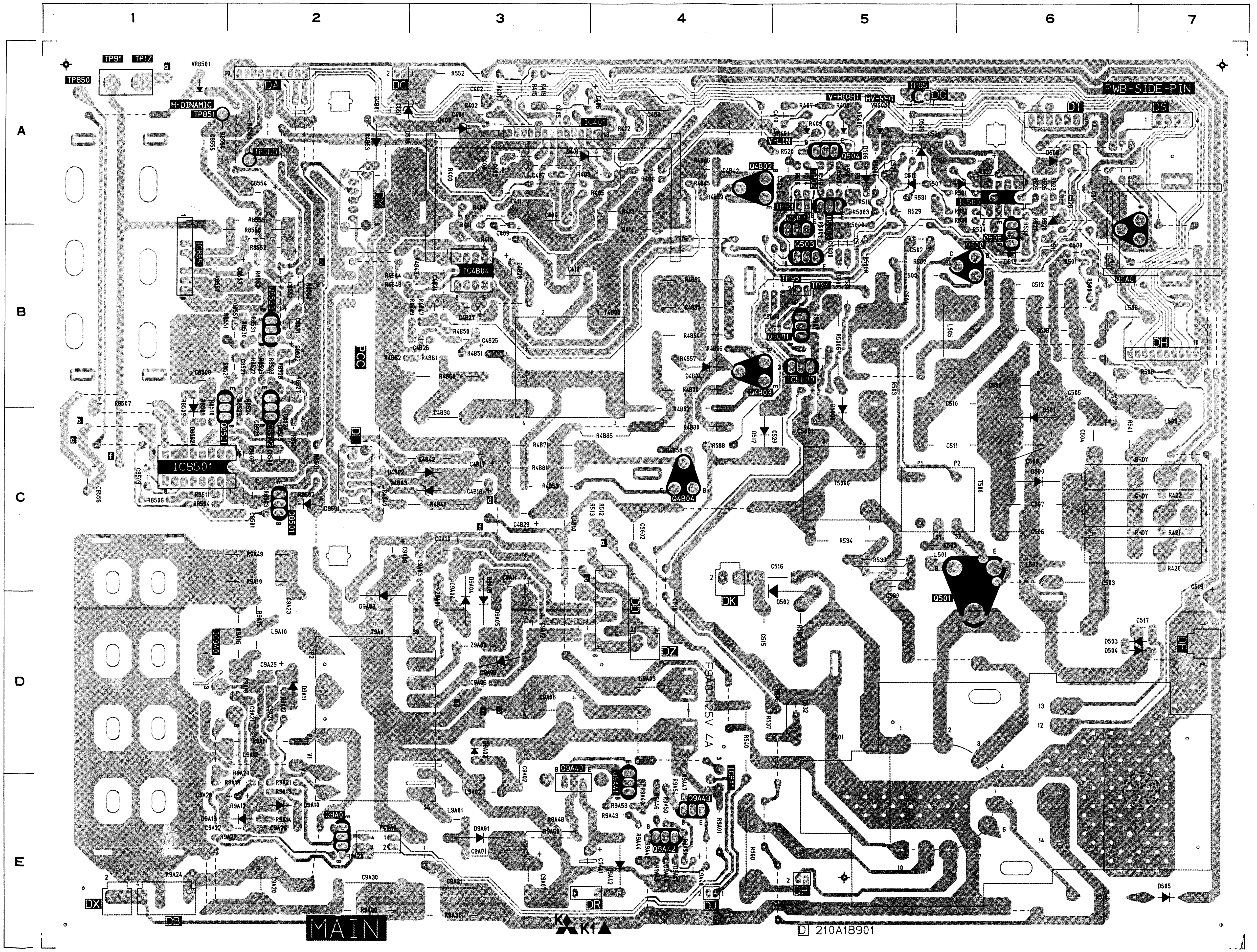

K1
C 210A19001
PREAMP
AN

PCB-DISPLAY


210A19001
BB
C
K1
DISPLAY
D78A0
BB
D7880
DISPLAY
C 210A19001

VS-40VA2
VS-45VA1
VS-45VA2
VS-50VA1
VS-50VA2
VS-60VA2
VS-45VA2CA
VS-50VA2CA
VS-60VA2CA(5/6)

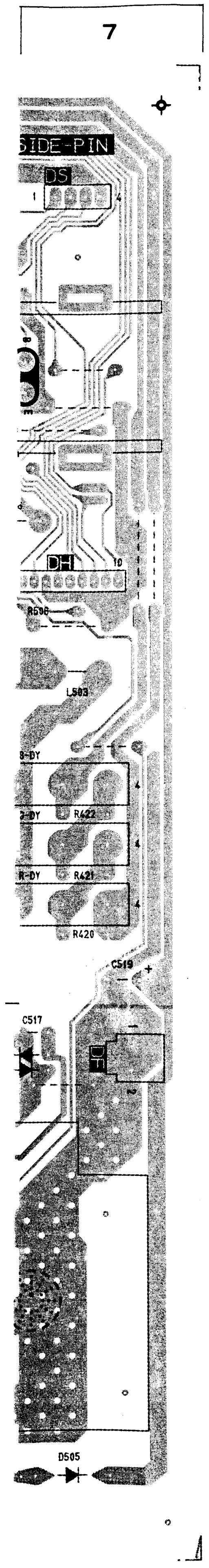
PCB-MAIN


1
2
3
4
5
6
7
A
B
C
D
E
TP850
TP91
TP1Z
VR8501
H-DYNAMIC
TP851
TPGND
IC8551
IC8501
PCC
IC401
IC4B04
Q4B02
Q4B03
Q4B04
IC5000
IC500
Q501
V-HIGHT
HV-REG
V-LIN
TP85
PWB-SIDE-PIN
DA
DC
DG
DT
DS
DH
DK
DD
DZ
DF
DX
DB
DR
DJ
IC9A0
IC9A1
Q9A0
Q9A40
Q9A41
Q9A42
Q9A43
F9A0 125V 4A
MAIN
K
K1
210A18901

PCB-MAIN

SYMBOL NO.	ADDRESS
D400	A – 3
D401	A – 3
D500	C – 6
D501	C – 6
D502	D – 4
D503	D – 6
D504	D – 6
D505	E – 7
D506	A – 5
D507	A – 6
D508	A – 6
D509	A – 5
D510	A – 5
D511	B – 6
D512	C – 4
D515	B – 6
D518	A – 2
D5000	B – 5
D8501	C – 2
D8502	C – 1
D4B01	A – 2
D4B02	C – 3
D4B03	C – 3
D4B04	B – 4
D9A01	E – 3
D9A02	D – 3
D9A03	D – 2
D9A04	D – 3
D9A05	D – 3
D9A06	D – 3
D9A10	E – 2
D9A11	D – 2
D9A13	E – 2
D9A40	E – 4
D9A41	E – 4
D9A42	E – 4
F9A0	D – 4
IC401	A – 3
IC5000	B – 5
IC500	A – 6
IC8501	C – 1
IC8551	B – 1
IC4B04	B – 3
IC9A0	D – 1
IC9A1	E – 4
L500	B – 6
L501	C – 5
L502	C – 6
L503	C – 7
L505	B – 6
L506	B – 7
L4B10	C – 3
L9A01	E – 3
L9A02	E – 3
L9A03	D – 4
L9A10	D – 2
L9A12	D – 2

SYMBOL NO.
Q500
Q501
Q502
Q503
Q504
Q506
Q5000
Q5001
Q8501
Q8521
Q8522
Q8523
Q4B02
Q4B03
Q4B04
Q5A0
Q9A0
Q9A40
Q9A41
Q9A42
Q9A43
T500
T501
T5000
T4B00
T9A0
TP85
TP91
TP92
TP93
TP94
TP95
TP850
TP851
TP1Z
TPGND
VR400
VR401
VR5000
VR8501
Z9A01
Z9A02

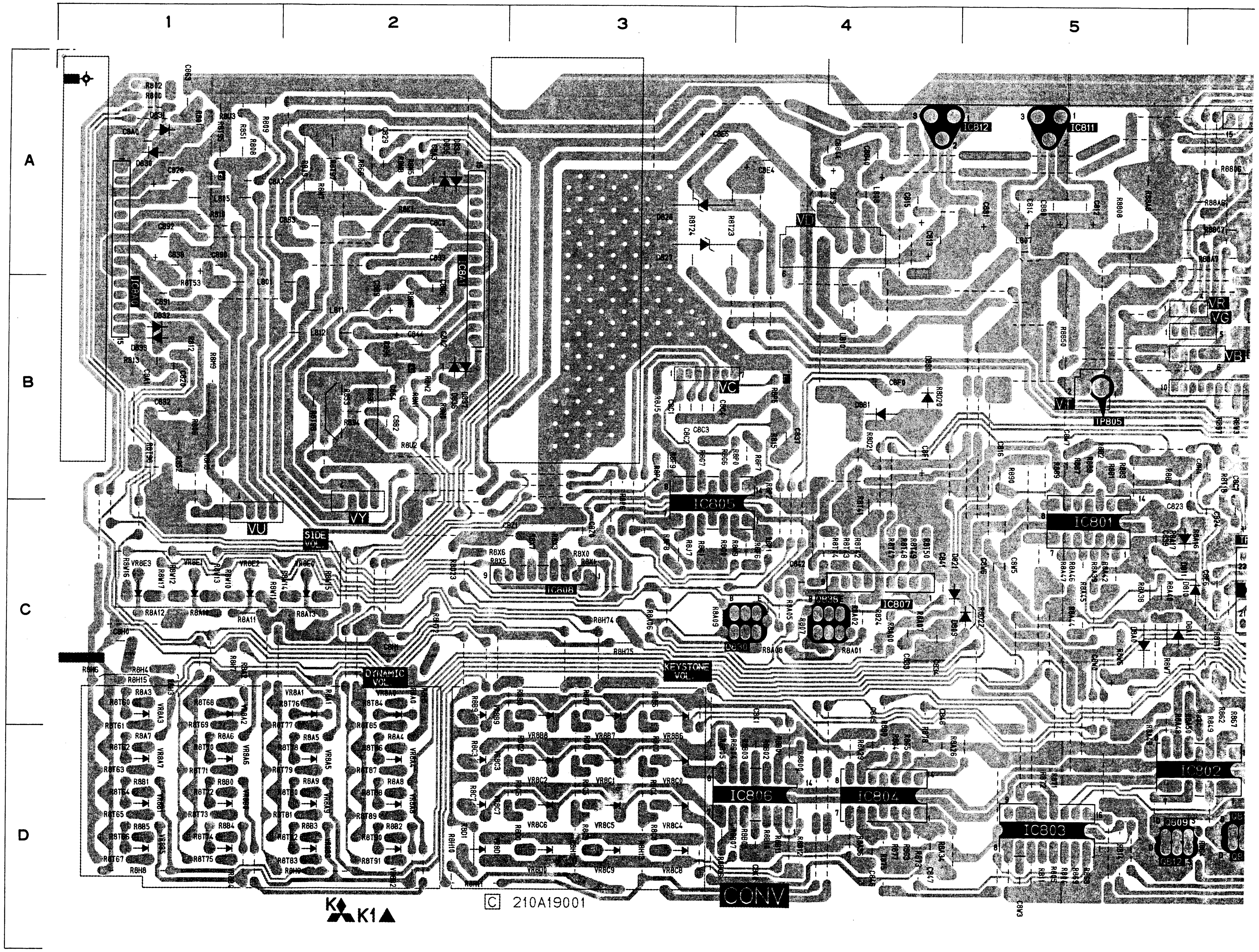

7
SIDE-PIN
DS
DH
R506
L503
B-DY
R422
R-DY
R421
R420
C519
C517
DF
D505

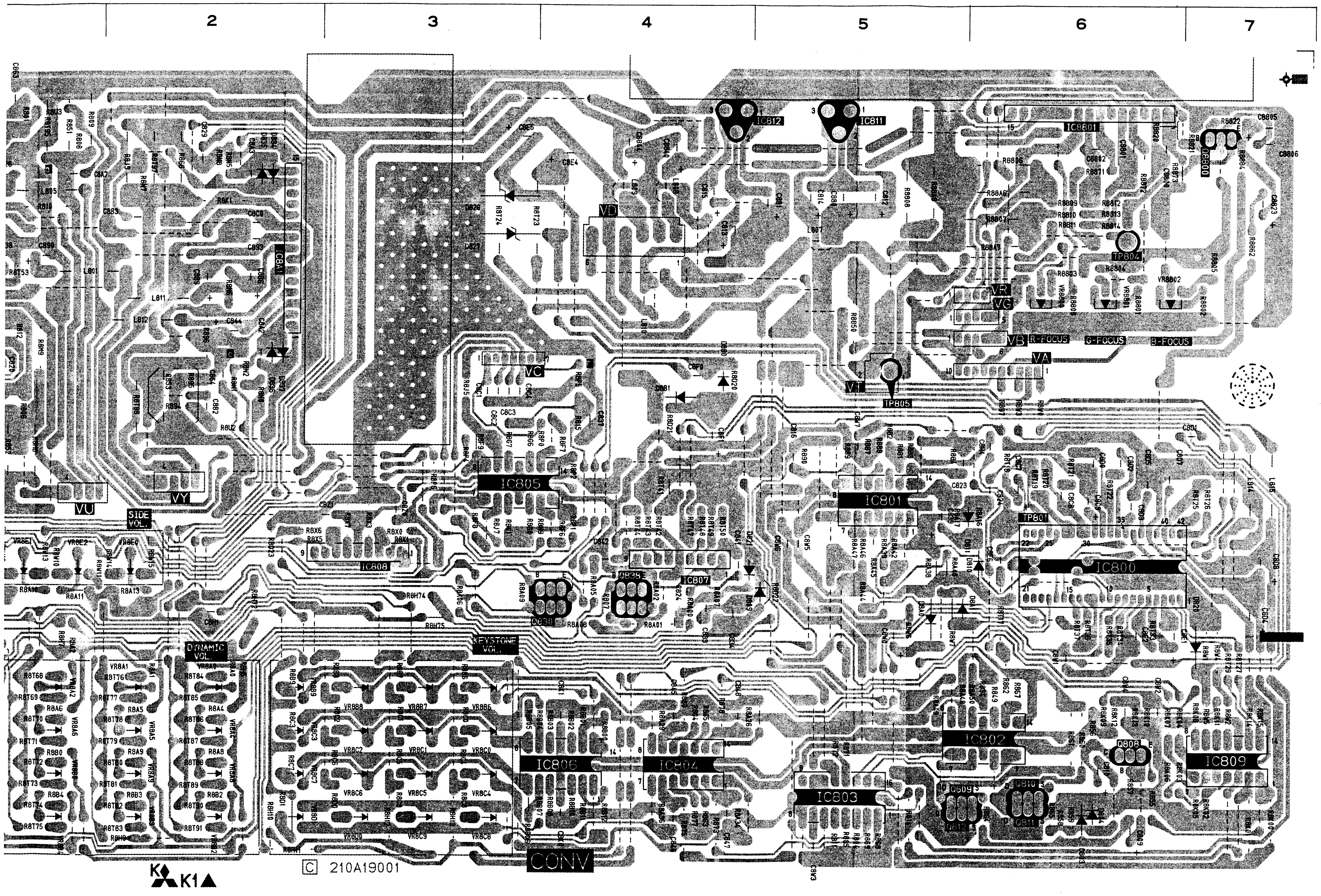
PCB-MAIN

SYMBOL NO.	ADDRESS
D400	A – 3
D401	A – 3
D500	C – 6
D501	C – 6
D502	D – 4
D503	D – 6
D504	D – 6
D505	E – 7
D506	A – 5
D507	A – 6
D508	A – 6
D509	A – 5
D510	A – 5
D511	B – 6
D512	C – 4
D515	B – 6
D518	A – 2
D5000	B – 5
D8501	C – 2
D8502	C – 1
D4B01	A – 2
D4B02	C – 3
D4B03	C – 3
D4B04	B – 4
D9A01	E – 3
D9A02	D – 3
D9A03	D – 2
D9A04	D – 3
D9A05	D – 3
D9A06	D – 3
D9A10	E – 2
D9A11	D – 2
D9A13	E – 2
D9A40	E – 4
D9A41	E – 4
D9A42	E – 4
F9A0	D – 4
IC401	A – 3
IC5000	B – 5
IC500	A – 6
IC8501	C – 1
IC8551	B – 1
IC4B04	B – 3
IC9A0	D – 1
IC9A1	E – 4
L500	B – 6
L501	C – 5
L502	C – 6
L503	C – 7
L505	B – 6
L506	B – 7
L4B10	C – 3
L9A01	E – 3
L9A02	E – 3
L9A03	D – 4
L9A10	D – 2
L9A12	D – 2

SYMBOL NO.	ADDRESS
Q500	B – 6
Q501	C – 6
Q502	A – 5
Q503	B – 5
Q504	A – 5
Q506	B – 6
Q5000	A – 5
Q5001	B – 5
Q8501	C – 2
Q8521	C – 2
Q8522	C – 2
Q8523	B – 2
Q4B02	A – 4
Q4B03	B – 4
Q4B04	C – 4
Q5A0	B – 7
Q9A0	E – 2
Q9A40	E – 3
Q9A41	E – 4
Q9A42	E – 4
Q9A43	E – 4
T500	C – 4
T501	D – 5
T5000	C – 4
T4B00	B – 3
T9A0	D – 2
TP85	A – 5
TP91	A – 1
TP92	A – 5
TP93	A – 5
TP94	B – 5
TP95	B – 5
TP850	A – 1
TP851	A – 1
TP1Z	A – 1
TPGND	A – 2
VR400	A – 5
VR401	A – 5
VR5000	A – 5
VR8501	A – 1
Z9A01	D – 3
Z9A02	D – 3

PCB-CONV


1
2
3
4
5
A
B
C
D
IC812
IC811
IC805
IC801
IC807
IC808
IC806
IC804
IC803
IC802
VU
VY
VC
VT
VR
VG
VB
TP805
SIDE VOL
DYNAMIC VOL
KEYSTONE VOL
CONV
K1
210A19001

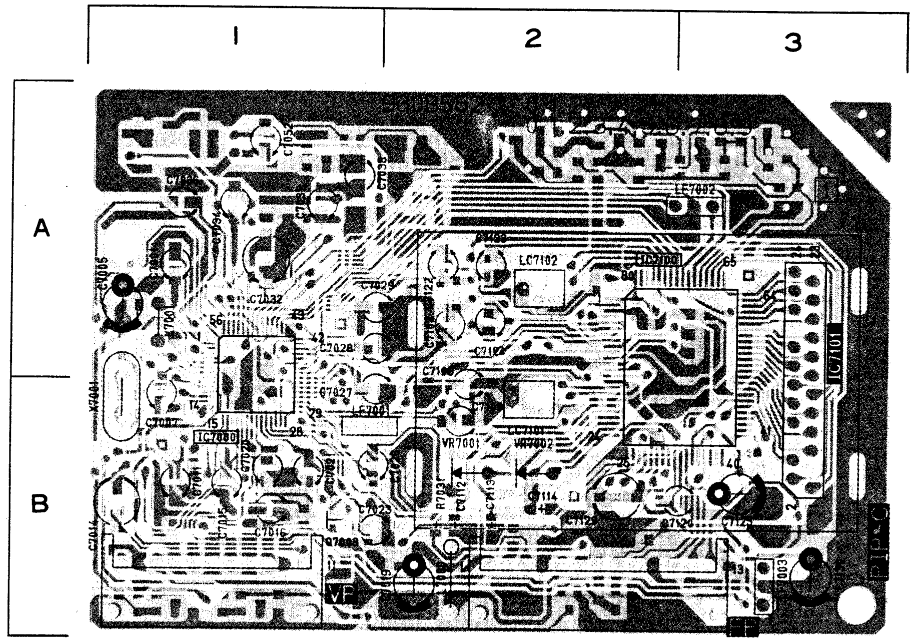

2
3
4
5
6
7
IC800
IC801
IC802
IC803
IC804
IC805
IC806
IC808
IC809
IC811
IC812
IC8801
TP804
TP805
TP801
VU
VY
VC
VD
VR
VG
VB
VA
VT
R-FOCUS
G-FOCUS
B-FOCUS
SIDE VOL.
DYNAMIC VOL.
KEYSTONE VOL.
CONV
Ⓒ 210A19001
K1▲

PCB-CONV

SYMBOL NO.	ADDRESS
D803	D－6
D804	D－6
D809	C－5
D810	C－5
D811	C－5
D820	C－7
D821	C－4
D826	A－3
D827	A－3
D830	A－1
D831	A－1
D832	B－1
D833	B－1
D834	A－2
D835	A－2
D836	B－2
D837	B－2
D8A0	C－5
D8A1	C－5
D8B0	B－4
D8B1	B－4
IC800	C－6
IC801	C－5
IC802	D－5
IC803	D－5
IC804	D－4
IC805	B－3
IC806	D－4
IC807	C－4
IC808	C－3
IC809	D－6
IC811	A－5
IC812	A－4
IC8801	A－6
IC8A0	A－1
IC8A1	A－2
L801	B－1
L805	A－1
L807	A－5
L808	A－4
L809	A－4
L810	B－4
L811	B－2
L812	B－2
L814	B－7
L815	B－7
Q808	D－6
Q809	D－6
Q810	D－6
Q811	D－6
Q812	D－6
Q830	C－4
Q838	C－4
Q8800	A－7
TP801	C－6
TP804	A－6

SYMBOL NO.	ADDRESS
TP805	B－5
VR8A0	C－2
VR8A1	C－2
VR8A2	C－1
VR8A3	C－1
VR8A4	D－2
VR8A5	D－2
VR8A6	D－1
VR8A7	D－1
VR8A8	D－2
VR8A9	D－2
VR8B0	D－1
VR8B1	D－1
VR8B2	D－2
VR8B3	D－2
VR8B4	D－1
VR8B5	D－1
VR8B6	C－3
VR8B7	C－3
VR8B8	C－3
VR8B9	C－2
VR8C0	D－3
VR8C1	D－3
VR8C2	D－3
VR8C3	D－2
VR8C4	D－3
VR8C5	D－3
VR8C6	D－3
VR8C7	D－2
VR8C8	D－3
VR8C9	D－3
VR8D0	D－3
VR8D1	D－2
VR8E0	C－2
VR8E1	C－1
VR8E2	C－1
VR8E3	C－1
VR8800	B－6
VR8801	B－6
VR8802	B－6

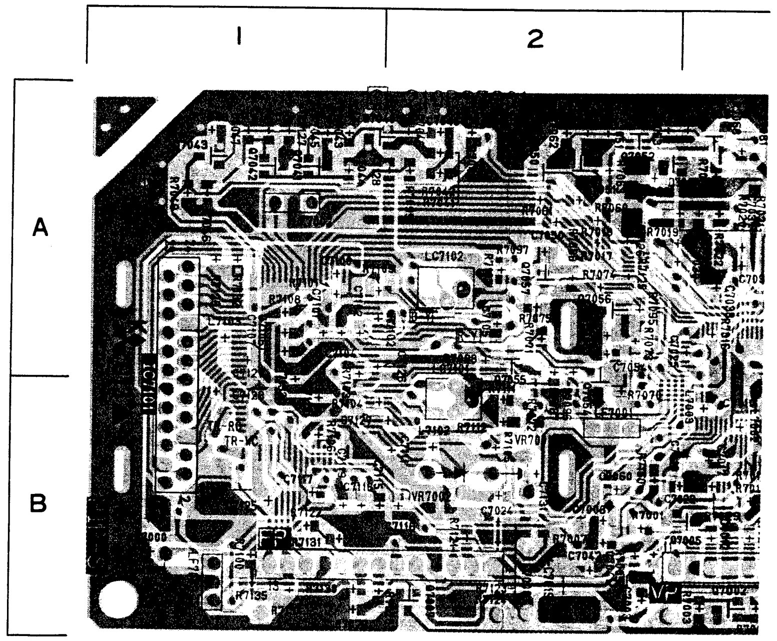
PCB-PIP(COMPONENT SIDE)


1
2
3
A
B
LC7102
LF7002
IC7101
IC7000
VR7001
VR7002
X7001
C7032
Q7003

PCB-PIP(COMPONENT SIDE)

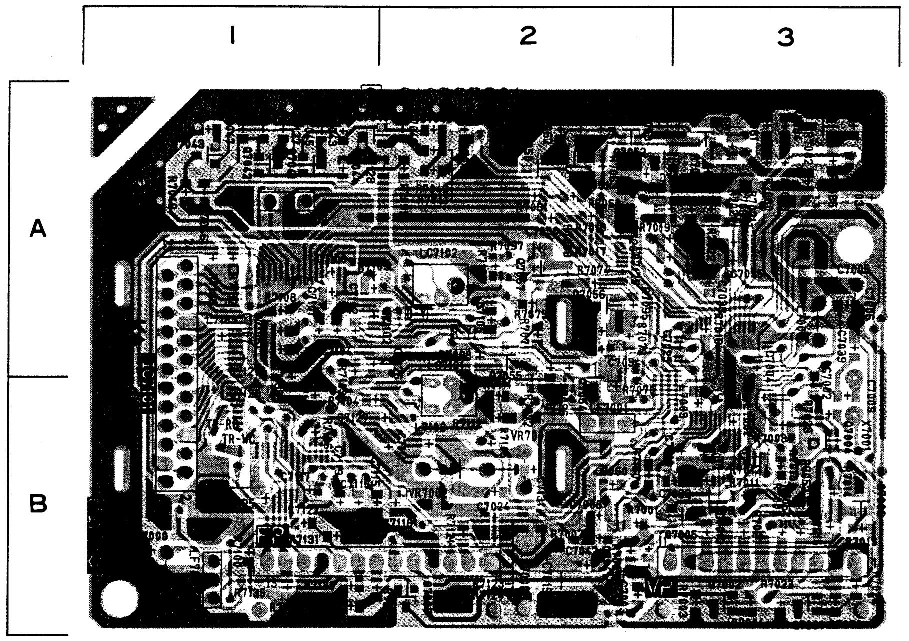
SYMBOL NO.	ADDRESS
C7001	A – 1
C7007	A – 1
C7011	B – 1
C7014	B – 1
C7015	B – 1
C7016	B – 1
C7020	A – 2
C7020	B – 1
C7021	B – 1
C7023	B – 2
C7026	B – 2
C7027	B – 2
C7029	A – 2
C7031	A – 1
C7032	A – 1
C7034	A – 1
C7036	A – 1
C7038	A – 1
C7052	A – 1
C7103	A – 2
C7108	B – 2
C7109	B – 2
C7112	B – 2
C7113	B – 2
C7114	B – 2
C7120	B – 2
C7122	A – 2
C7123	A – 2
C7124	A – 2
C7129	B – 2
IC7000	A – 1
IC7100	A – 3
IC7101	A – 3
L7000	B – 2
L7001	A – 1
LC7101	B – 2
LC7102	A – 2
LF7001	B – 2
LF7002	A – 3
LF7130	B – 3
Q7003	B – 1
R7031	B – 2
VR7001	B – 2
VR7002	B – 2
X7001	B – 1

PCB-PIP(SOLDER SIDE)


1
2
A
B
LC7102
IC7101
VR7001
R7031

IENT SIDE)

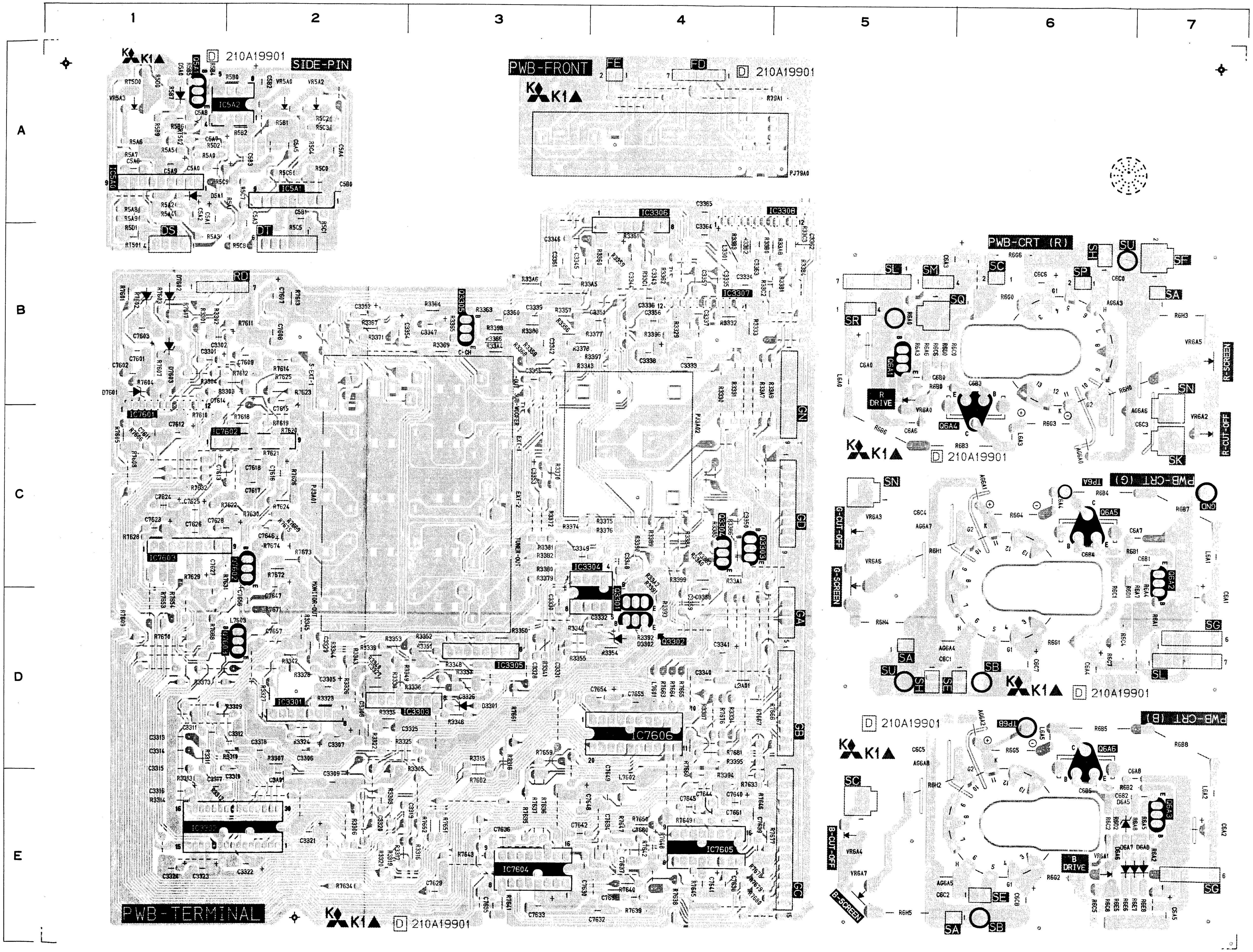
PCB-PIP(SOLDER SIDE)



PCB-PIP(SOLDER SIDE)

SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRESS
C7002	B – 3	L7103	A – 1	R7042	A – 2	R7129	A – 1
C7003	B – 2			R7043	A – 1	R7130	B – 1
C7004	A – 3	LC7101	B – 2	R7044	A – 1	R7131	B – 1
C7005	A – 3	LC7102	A – 1	R7045	A – 1	R7132	A – 1
C7006	A – 3			R7046	A – 1	R7133	A – 1
C7008	B – 2	LF7000	B – 1	R7047	A – 1	R7134	B – 1
C7009	B – 3	LF7001	B – 2	R7048	A – 1	R7135	B – 1
C7010	B – 3	LF7002	A – 1	R7049	A – 1	R7150	B – 2
C7012	B – 3	LF7003	B – 1	R7050	B – 3		
C7018	B – 3			R7051	B – 3	VR7001	B – 2
C7022	B – 3	Q7001	B – 3	R7052	B – 3	VR7002	B – 2
C7024	B – 2	Q7002	B – 3	R7060	A – 2		
C7025	A – 3	Q7004	B – 3	R7061	A – 2	X7001	B – 3
C7030	A – 3	Q7005	B – 3	R7062	A – 2		
C7033	A – 3	Q7006	B – 3	R7063	A – 2		
C7035	A – 3	Q7007	B – 2	R7064	A – 2		
C7037	A – 3	Q7040	A – 1	R7065	A – 3		
C7039	A – 3	Q7041	A – 1	R7066	A – 2		
C7041	B – 2	Q7042	A – 1	R7067	A – 3		
C7042	B – 2	Q7043	A – 1	R7068	A – 3		
C7045	A – 2	Q7050	A – 2	R7070	B – 2		
C7046	A – 2	Q7051	A – 2	R7071	A – 2		
C7047	A – 1	Q7052	A – 2	R7072	B – 2		
C7050	A – 2	Q7053	A – 3	R7073	A – 2		
C7051	A – 2	Q7054	A – 2	R7074	A – 2		
C7053	A – 2	Q7055	A – 2	R7075	A – 2		
C7054	A – 2	Q7056	A – 2	R7080	A – 3		
C7055	A – 2	Q7057	A – 2	R7081	A – 3		
C7060	B – 2	Q7058	A – 3	R7082	A – 3		
C7100	A – 1			R7083	A – 3		
C7101	A – 1	R7001	B – 2	R7084	A – 3		
C7102	A – 1	R7002	B – 3	R7085	A – 3		
C7104	A – 1	R7003	B – 3	R7086	A – 3		
C7105	A – 2	R7004	B – 3	R7087	A – 2		
C7106	A – 1	R7007	B – 2	R7088	A – 2		
C7107	A – 1	R7008	B – 3	R7095	A – 2		
C7107	B – 3	R7009	B – 2	R7096	A – 2		
C7110	B – 1	R7010	B – 3	R7097	A – 2		
C7111	B – 1	R7011	B – 3	R7098	A – 2		
C7115	B – 1	R7012	B – 3	R7099	A – 2		
C7117	B – 1	R7013	B – 3	R7100	B – 1		
C7118	B – 2	R7014	B – 3	R7101	A – 1		
C7119	B – 1	R7015	B – 3	R7102	A – 2		
C7121	A – 1	R7016	A – 3	R7103	A – 1		
C7125	B – 1	R7017	A – 2	R7104	B – 1		
C7126	A – 1	R7018	A – 2	R7105	B – 2		
C7127	B – 1	R7019	A – 3	R7106	B – 1		
C7128	B – 1	R7020	A – 3	R7107	A – 2		
C7131	B – 2	R7021	A – 3	R7108	A – 1		
		R7022	A – 3	R7109	A – 1		
D7001	A – 3	R7023	B – 3	R7111	B – 2		
		R7024	B – 3	R7112	B – 2		
IC7101	A – 1	R7025	B – 2	R7121	B – 2		
IC7116	B – 1	R7026	B – 1	R7122	B – 1		
		R7027	B – 3	R7123	B – 2		
L7000	B – 2	R7028	B – 3	R7124	B – 2		
L7001	A – 3	R7029	B – 3	R7125	A – 2		
L7002	B – 3	R7034	A – 3	R7126	A – 2		
L7003	B – 3	R7040	A – 2	R7127	A – 1		
L7102	B – 2	R7041	A – 2	R7128	A – 1		

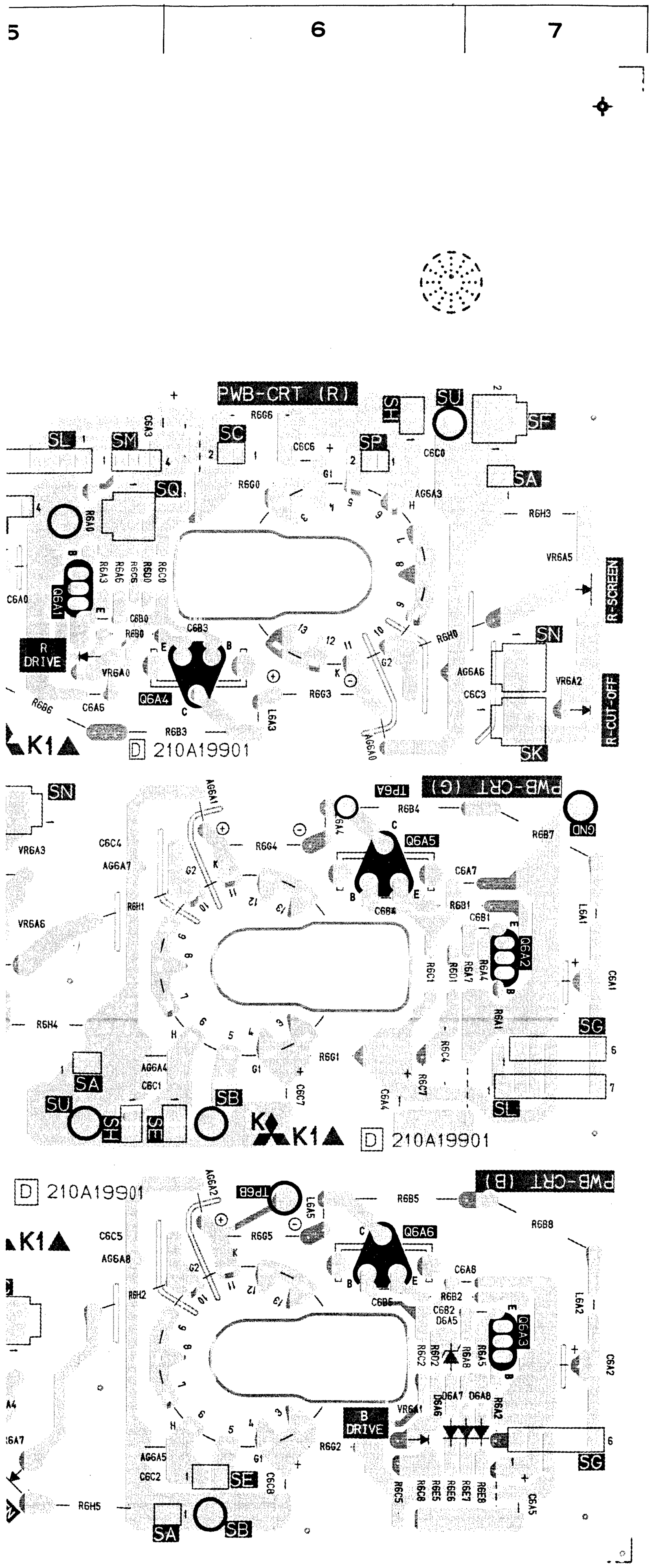
PCB-SIDE-PIN/TERMINAL/FRONT/FOR CRT


1
2
3
4
5
6
7
A
B
C
D
E
SIDE-PIN
210A19901
K1▲
PWB-FRONT
FE
FD
PWB-TERMINAL
PWB-CRT (R)
PWB-CRT (G)
PWB-CRT (B)
R DRIVE
B DRIVE
R-SCREEN
R-CUT-OFF
G-CUT-OFF
G-SCREEN
B-CUT-OFF
B-SCREEN
IC5A0
IC5A1
IC5A2
IC3301
IC3302
IC3303
IC3304
IC3305
IC3306
IC3307
IC3308
IC7601
IC7602
IC7603
IC7604
IC7605
IC7606
Q3301
Q3302
Q3303
Q3304
Q3305
Q6A1
Q6A2
Q6A3
Q6A4
Q6A5
Q6A6
TP6A
TP6B
GND
SL
SM
SC
SH
SU
SF
SP
SA
SQ
SR
SN
SK
SG
SE
SB
DS
DT
RD
GN
GD
GA
GB
GC

PCB-SIDE-PIN/TERMINAL

SYMBOL NO.	ADDRESS
D5A0	A – 1
D5A1	A – 1
D6A5	E – 6
D6A6	E – 6
D6A7	E – 7
D6A8	E – 7
D3301	D – 3
D3302	D – 4
D7601	B – 1
D7602	B – 1
D7603	B – 1
GND	C – 7
IC5A0	A – 1
IC5A1	A – 1
IC5A2	A – 1
IC3301	D – 2
IC3302	E – 1
IC3303	D – 2
IC3304	C – 4
IC3305	D – 3
IC3306	A – 4
IC3307	B – 4
IC3308	A – 4
IC7601	C – 1
IC7602	C – 2
IC7603	C – 1
IC7604	E – 3
IC7605	E – 4
IC7606	D – 4
L3A01	D – 4
L6A0	B – 5
L6A1	C – 7
L6A2	E – 7
L6A3	C – 6
L6A4	C – 6
L6A5	D – 6
L3301	B – 4
L7601	D – 4
L7602	E – 4
L7603	D – 2
Q5A1	A – 1
Q6A1	B – 5
Q6A2	C – 7
Q6A3	E – 7
Q6A4	C – 6
Q6A5	C – 6
Q6A6	D – 6
Q3301	D – 4
Q3302	D – 4
Q3303	C – 4
Q3304	C – 4
Q3305	B – 3
Q7602	C – 2
Q7603	D – 2
TP6A	C – 6

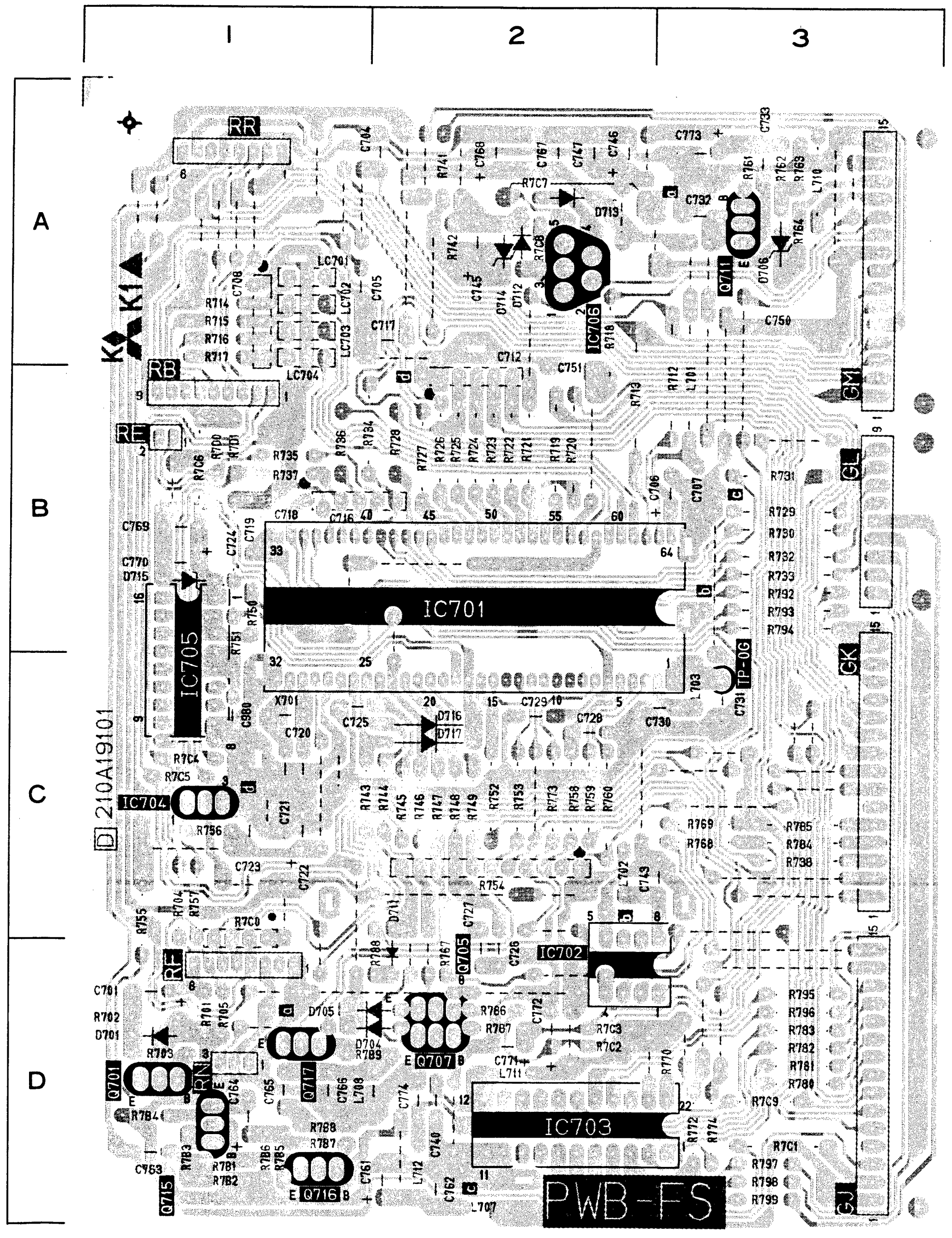
SYMBOL NO.	AD
TP6B	
VR5A0	
VR5A2	
VR5A3	
VR6A0	
VR6A1	
VR6A2	
VR6A3	
VR6A4	
VR6A5	
VR6A6	
VR6A7	


5
6
7
PWB-CRT (R)
SL
SM
SC
SP
SH
SU
SF
SQ
SA
SN
SK
R-SCREEN
R-CUT-OFF
R DRIVE
Q6A1
Q6A4
VR6A0
VR6A2
VR6A5
K1▲
210A19901
PWB-CRT (G)
TP6A
Q6A5
Q6A2
GND
VR6A3
VR6A6
SG
SA
SU
SH
SE
SB
K1▲
210A19901
PWB-CRT (B)
TP6B
Q6A6
Q6A3
B DRIVE
VR6A1
D6A5
D6A6
D6A7
D6A8
SG
SE
SA
SB
K1▲
210A19901

PCB-SIDE-PIN/TERMINAL/FRONT/FOR CRT

SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRESS
D5A0	A – 1	TP6B	D – 6
D5A1	A – 1		
D6A5	E – 6	VR5A0	A – 1
D6A6	E – 6	VR5A2	A – 1
D6A7	E – 7	VR5A3	A – 1
D6A8	E – 7	VR6A0	B – 5
D3301	D – 3	VR6A1	E – 6
D3302	D – 4	VR6A2	C – 7
D7601	B – 1	VR6A3	C – 5
D7602	B – 1	VR6A4	E – 5
D7603	B – 1	VR6A5	B – 7
		VR6A6	C – 5
GND	C – 7	VR6A7	E – 5
IC5A0	A – 1		
IC5A1	A – 1		
IC5A2	A – 1		
IC3301	D – 2		
IC3302	E – 1		
IC3303	D – 2		
IC3304	C – 4		
IC3305	D – 3		
IC3306	A – 4		
IC3307	B – 4		
IC3308	A – 4		
IC7601	C – 1		
IC7602	C – 2		
IC7603	C – 1		
IC7604	E – 3		
IC7605	E – 4		
IC7606	D – 4		
L3A01	D – 4		
L6A0	B – 5		
L6A1	C – 7		
L6A2	E – 7		
L6A3	C – 6		
L6A4	C – 6		
L6A5	D – 6		
L3301	B – 4		
L7601	D – 4		
L7602	E – 4		
L7603	D – 2		
Q5A1	A – 1		
Q6A1	B – 5		
Q6A2	C – 7		
Q6A3	E – 7		
Q6A4	C – 6		
Q6A5	C – 6		
Q6A6	D – 6		
Q3301	D – 4		
Q3302	D – 4		
Q3303	C – 4		
Q3304	C – 4		
Q3305	B – 3		
Q7602	C – 2		
Q7603	D – 2		
TP6A	C – 6		

PCB-FS


1
2
3
A
B
C
D
RR
RB
RE
RF
RN
K1▲
210A19101
IC701
IC702
IC703
IC704
IC705
IC706
Q701
Q705
Q707
Q711
Q715
Q716
Q717
D701
D704
D705
D706
D711
D712
D713
D714
D715
D716
D717
LC701
LC702
LC703
LC704
L701
L702
L707
L708
L710
L711
L712
X701
TP-0G
GM
GL
GK
GJ
PWB-FS

PCB-FS

SYMBOL NO.	ADDRESS
D701	D – 1
D704	D – 1
D705	D – 1
D706	A – 3
D711	D – 2
D712	A – 2
D713	A – 2
D714	A – 2
D715	B – 1
D716	C – 2
D717	C – 2
IC701	B – 2
IC702	D – 2
IC703	D – 2
IC704	C – 1
IC705	B – 1
IC706	A – 2
L701	B – 3
L702	C – 2
L707	D – 2
L708	D – 1
L710	A – 3
L711	D – 2
L712	D – 2
LC701	A – 1
LC702	A – 1
LC703	A – 1
LC704	A – 1
Q701	D – 1
Q705	D – 2
Q707	D – 2
Q711	A – 3
Q715	D – 1
Q716	D – 1
Q717	D – 1
TP – 0G	C – 3
X701	C – 1